FCC SAR EVALUATION REPORT

In accordance with the requirements of
FCC 47 CFR Part 2(2.1093), ANSI/IEEE C95.1-1992 and
IEEE Std 1528-2013

Product Name：	4G Tablet
Trademark：	Blackview
Model Name：	Tab 6
Family Model：	Tab 11, Tab 6 Kids, Tab 12, Tab 13, Tab 15, Tab 10 Pro
Report No.：	STR220224007008E
FCC ID：	2APMJTAB6

Prepared for

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TEST RESULT CERTIFICATION

Applicant's name..... :	Shenzhen DOKE Electronic Co., Ltd
Address..... :	13th Floor, Weidonglong commercial building B, Meilong avenue, Longhua New District, Shenzhen, China
Manufacturer's Name..... :	Shenzhen DOKE Electronic Co.,Ltd
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Product description

Product name..... :	4G Tablet
Trademark ..... :	Blackview
Model Name ..... :	Tab 6
Family Model..... :	Tab 11, Tab 6 Kids, Tab 12, Tab 13, Tab 15, Tab 10 Pro
Standards..... :	FCC 47 CFR Part 2(2.1093) ANSI/IEEE C95.1-1992 IEEE Std 1528-2013 Published RF exposure KDB procedures

This device described above has been tested by Shenzhen NTEK. In accordance with the measurement methods and procedures specified in IEEE Std 1528-2013 and KDB 865664 D01. Testing has shown that this device is capable of compliance with localized specific absorption rate (SAR) specified in FCC 47 CFR Part 2(2.1093) and ANSI/IEEE C95.1-1992. The test results in this report apply only to the tested sample of the stated device/equipment. Other similar device/equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties.

Date of Test

Date (s) of performance of tests..... :	Feb. 26, 2022 ~ Mar. 10, 2022
Date of Issue ..... :	Apr. 14, 2022
Test Result ..... :	**Pass**

Prepared By (Test Engineer) : Jacob . chen

(Jacob Chen)

Approved By (Lab Manager) : Alex

(Alex Li)

※ ※ Revision History ※ ※

REV.	DESCRIPTION	ISSUED DATE	REMARK
Rev.1.0	Initial Test Report Release	Apr. 14, 2022	Jacob Chen

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1. General Information

1.1. RF exposure limits

(A).Limits for Occupational/Controlled Exposure (W/kg)

Whole-Body	Partial-Body	Hands, Wrists, Feet and Ankles
0.4	8.0	20.0

(B).Limits for General Population/Uncontrolled Exposure (W/kg)

Whole-Body	Partial-Body	Hands, Wrists, Feet and Ankles
0.08	1.6	4.0

NOTE: ***Whole-Body SAR*** is averaged over the entire body, ***partial-body SAR*** is averaged over any 1 gram of tissue defined as a tissue volume in the shape of a cube. ***SAR for hands, wrists, feet and ankles*** is averaged over any 10 grams of tissue defined as a tissue volume in the shape of a cube.

Occupational/Controlled Environments:

Are defined as locations where there is exposure that may be incurred by people who are aware of the potential for exposure, (i.e. as a result of employment or occupation).

General Population/Uncontrolled Environments:

Are defined as locations where there is the exposure of individuals who have no knowledge or control of their exposure.

NOTE

HEAD AND TRUNK LIMIT

1.6 W/kg

APPLIED TO THIS EUT

1.2. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for Tab 6 are as follows.

RF Exposure Conditions		Equipment Class -Highest Reported SAR (W/kg)			
		PCE	DTS	NII	DSS
1-g Head		0.387	0.227	0.247	N/A
1-g Body-Worn (Separation distance of 0mm)		1.056	0.306	0.308	N/A
1-g Hotspot (Separation distance of 0mm)		1.056	0.306	0.308	N/A
Max Simultaneous Tx	Head	0.634	0.614	0.634	0.492
	Body-Worn	1.364	1.362	1.364	1.161
	Hotspot	1.364	1.362	1.364	1.161

Note: The Max Simultaneous Tx is calculated based on the same configuration and test position.
This device is in compliance with Specific Absorption Rate (SAR) for general population/uncontrolled exposure limits (1.6 W/kg) specified in FCC 47 CFR Part 2(2.1093) and ANSI/IEEE C95.1-1992, and had been tested in accordance with the measurement methods and procedures specified in IEEE Std 1528-2013 & KDB 865664 D01.

1.3. EUT Description

Device Information			
Product Name	4G Tablet		
Trade Name	Blackview		
Model Name	Tab 6		
Family Model	Tab 11, Tab 6 Kids, Tab 12, Tab 13, Tab 15, Tab 10 Pro		
FCC ID	2APMJTAB6		
Device Phase	Identical Prototype		
Exposure Category	General population / Uncontrolled environment		
Antenna	PIFA Antenna		
Battery Information	DC 3.8V, 5580mAh		
HW Version	S866T-T310-V1.0		
SW Version	Tab6_US_S886T_V1.0		
Device Operating Configurations			
Supporting Mode(s)	GSM 850/1900, WCDMA Band 2/4/5, LTE Band 2/4/5/7/25/26, WLAN 2.4G/5G, Bluetooth		
Test Modulation	GSM(GMSK/8PSK), WCDMA(QPSK), LTE(QPSK/16QAM), WLAN(DSSS/OFDM), Bluetooth(GFSK, π/4-DQPSK, 8DPSK)		
Device Class	B		
Operating Frequency Range(s)	Band	Tx (MHz)	Rx (MHz)

	GSM 850	824-849	869-894
	GSM 1900	1850-1910	1930-1990
	WCDMA Band 2	1850-1910	1930-1990
	WCDMA Band 4	1710-1755	2110-2155
	WCDMA Band 5	824-849	869-894
	LTE Band 2	1850-1910	1930-1990
	LTE Band 4	1710-1755	2110-2155
	LTE Band 5	824-849	869-894
	LTE Band 7	2500-2570	2620-2690
	LTE Band 25	1850-1915	1930-1995
	LTE Band 26	814-849	859-894
	WLAN 2.4G	2412-2462	
	WLAN 5.2G	5180-5240	
	WLAN 5.8G	5745-5825	
	Bluetooth	2402-2480	
GPRS Multislot Class(12)	Max Number of Timeslots in Uplink	4	
	Max Number of Timeslots in Downlink	4	
	Max Total Timeslot	5	
EDGE Multislot Class(12)	Max Number of Timeslots in Uplink	4	
	Max Number of Timeslots in Downlink	4	
	Max Total Timeslot	5	
Power Class	4, tested with power level 5(GSM 850)		
	1, tested with power level 0(GSM 1900)		
	3, tested with power control “all 1”(WCDMA Band 2)		
	3, tested with power control “all 1”(WCDMA Band 4)		
	3, tested with power control “all 1”(WCDMA Band 5)		
	3, tested with power control all Max.(LTE Band 2)		
	3, tested with power control all Max.(LTE Band 4)		
	3, tested with power control all Max.(LTE Band 5)		
	3, tested with power control all Max.(LTE Band 7)		
	3, tested with power control all Max.(LTE Band 25)		
	3, tested with power control all Max.(LTE Band 26)		

1.4. Test specification(s)

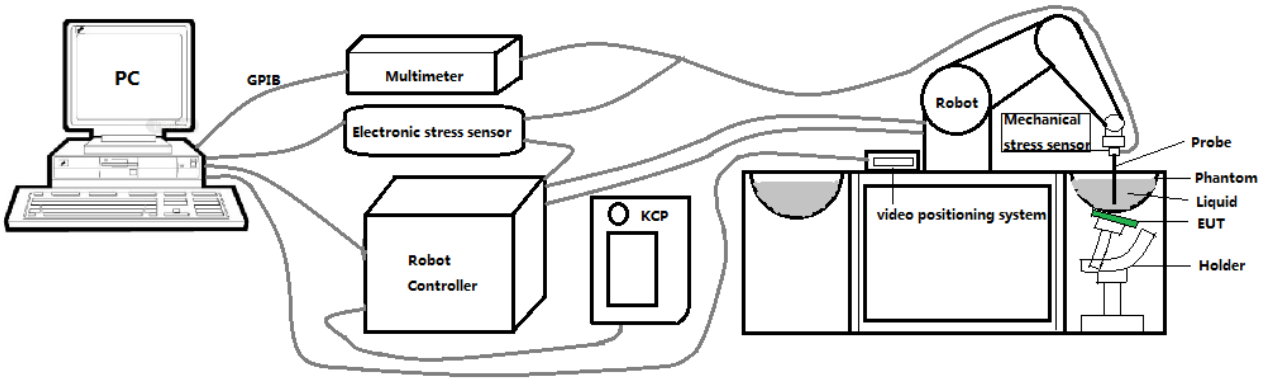
FCC 47 CFR Part 2(2.1093)
ANSI/IEEE C95.1-1992
IEEE Std 1528-2013
KDB 865664 D01 SAR measurement 100 MHz to 6 GHz
KDB 865664 D02 RF Exposure Reporting
KDB 447498 D01 General RF Exposure Guidance
KDB 248227 D01 802.11 Wi-Fi SAR
KDB 941225 D01 3G SAR Procedures
KDB 941225 D05 SAR for LTE Devices
KDB 941225 D06 Hotspot SAR
KDB 616217 D04 SAR for laptop and tablets

1.5. Ambient Condition

Ambient temperature	20°C – 24°C
Relative Humidity	30% – 70%

2. SAR Measurement System

2.1. SATIMO SAR Measurement Set-up Diagram



These measurements were performed with the automated near-field scanning system OPENSAR from SATIMO. The system is based on a high precision robot (working range: 901 mm), which positions the probes with a positional repeatability of better than ±0.03 mm. The SAR measurements were conducted with dosimetric probe (manufactured by SATIMO), designed in the classical triangular configuration and optimized for dosimetric evaluation.

The first step of the field measurement is the evaluation of the voltages induced on the probe by the device under test. Probe diode detectors are nonlinear. Below the diode compression point, the output voltage is proportional to the square of the applied E-field; above the diode compression point, it is linear to the applied E-field. The compression point depends on the diode, and a calibration procedure is necessary for each sensor of the probe.

The Keithley multimeter reads the voltage of each sensor and send these three values to the PC. The corresponding E field value is calculated using the probe calibration factors, which are stored in the working directory. This evaluation includes linearization of the diode characteristics. The field calculation is done separately for each sensor. Each component of the E field is displayed on the "Dipole Area Scan Interface" and the total E field is displayed on the "3D Interface"

2.2. Robot

The SATIMO SAR system uses the high precision robots from KUKA. For the 6-axis controller system, the robot controller version (KUKA) from KUKA is used. The KUKA robot series have many features that are important for our application:

- High precision (repeatability ±0.03 mm)
- High reliability (industrial design)
- Jerk-free straight movements
- Low ELF interference (the closed metallic construction shields against motor control fields)

2.3. E-Field Probe

This E-field detection probe is composed of three orthogonal dipoles linked to special Schottky diodes with low detection thresholds. The probe allows the measurement of electric fields in liquids such as the one defined in the IEEE and CENELEC standards.

For the measurements the Specific Dosimetric E-Field Probe SN 08/16 EPGO287 with following specifications is used

- Dynamic range: 0.01-100 W/kg
- Tip Diameter : 2.5 mm
- Distance between probe tip and sensor center: 1 mm
- Distance between sensor center and the inner phantom surface: 2 mm (repeatability better than ±1 mm).
- Probe linearity: ±0.08 dB
- Axial isotropy: ±0.01 dB
- Hemispherical Isotropy: ±0.01 dB
- Calibration range: 650MHz to 5900MHz for head & body simulating liquid.
- Lower detection limit: 8mW/kg

Angle between probe axis (evaluation axis) and surface normal line: less than 30°.

2.3.1. E-Field Probe Calibration

Each probe needs to be calibrated according to a dosimetric assessment procedure with accuracy better than ±10%. The spherical isotropy shall be evaluated and within ±0.25dB. The sensitivity parameters (Norm X, Norm Y, and Norm Z), the diode compression parameter (DCP) and the conversion factor (Conv F) of the probe are tested. The calibration data can be referred to appendix D of this report.

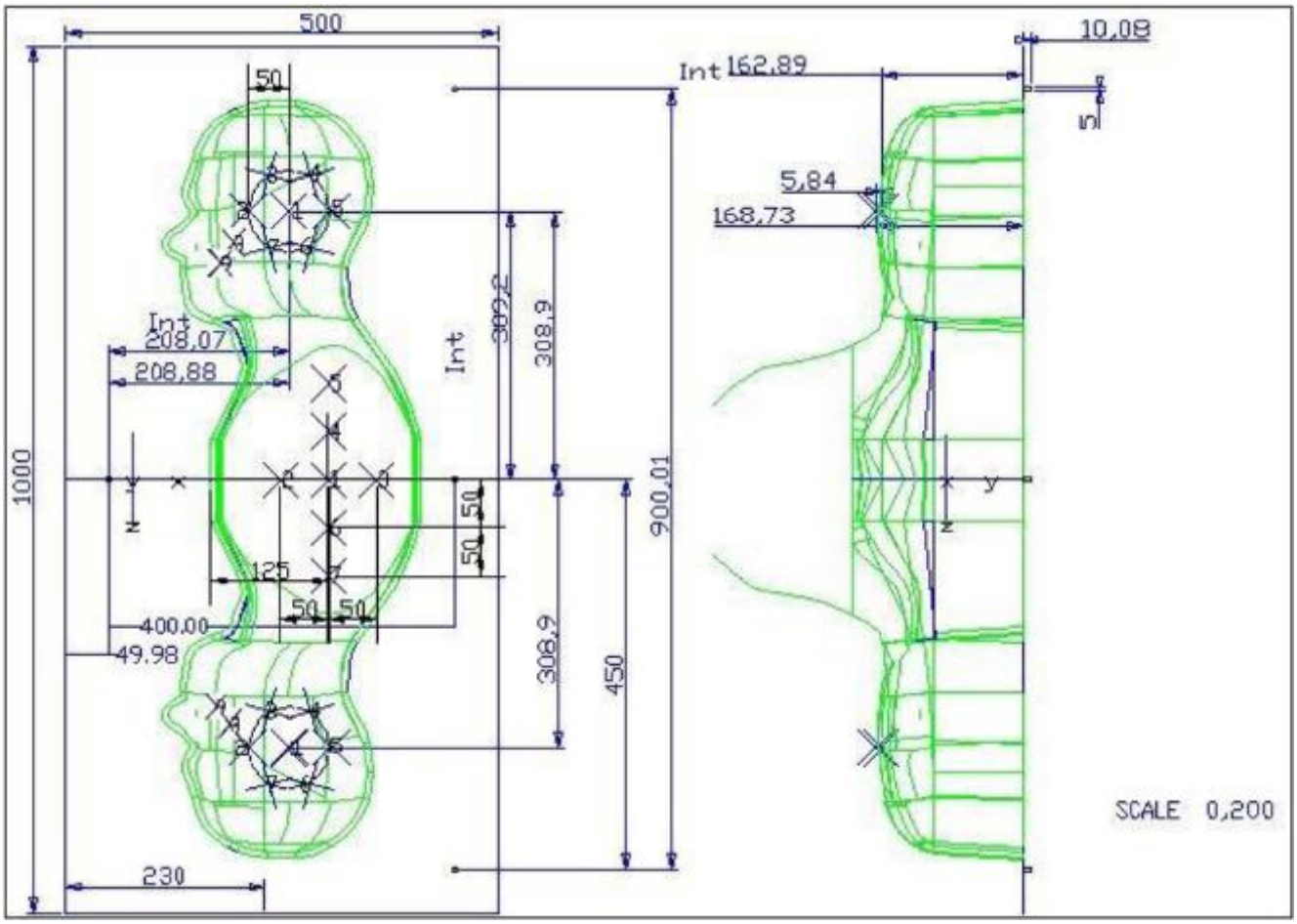
2.4. SAM phantoms

Photo of SAM phantom SN 16/15 SAM119

The SAM phantom is used to measure the SAR relative to people exposed to electro-magnetic field radiated by mobile phones.

2.4.1. Technical Data

Serial Number	Shell thickness	Filling volume	Dimensions	Positionner Material	Permittivity	Loss Tangent
SN 16/15 SAM119	2 mm ±0.2 mm	27 liters	Length:1000 mm Width:500 mm Height:200 mm	Gelcoat with fiberglass	3.4	0.02

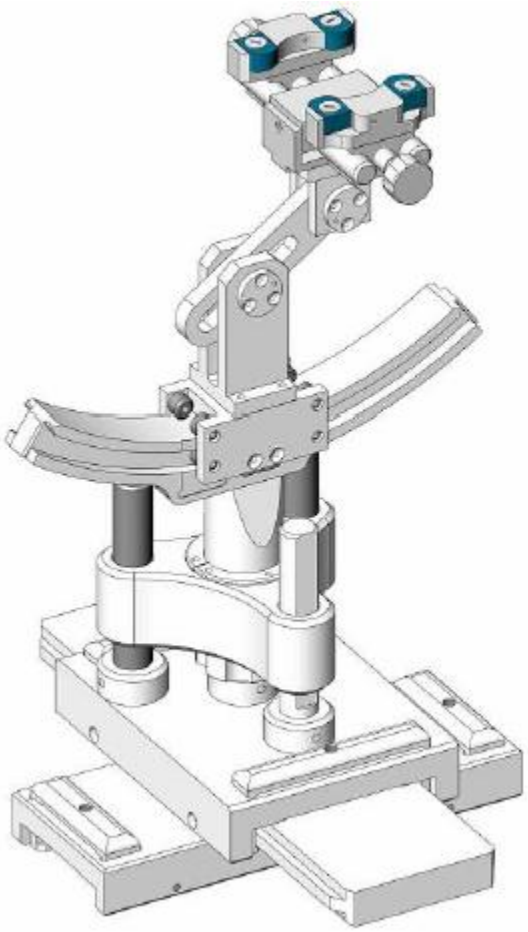


Serial Number	Left Head(mm)		Right Head(mm)		Flat Part(mm)	
SN 16/15 SAM119	2	2.02	2	2.08	1	2.09
	3	2.05	3	2.06	2	2.06
	4	2.07	4	2.07	3	2.08
	5	2.08	5	2.08	4	2.10
	6	2.05	6	2.07	5	2.10
	7	2.05	7	2.05	6	2.07
	8	2.07	8	2.06	7	2.07
	9	2.08	9	2.06	-	-

The test, based on ultrasonic system, allows measuring the thickness with an accuracy of 10 µm.

2.5. Device Holder

The positioning system allows obtaining cheek and tilting position with a very good accuracy. In compliance with CENELEC, the tilt angle uncertainty is lower than 1 degree.



Serial Number	Holder Material	Permittivity	Loss Tangent
SN 16/15 MSH100	Delrin	3.7	0.005

2.6. Test Equipment List

This table gives a complete overview of the SAR measurement equipment.

Devices used during the test described are marked ☒

	Manufacturer	Name of Equipment	Type/Model	Serial Number	Calibration	
					Last Cal.	Due Date
☒	MVG	E FIELD PROBE	SSE2	SN 08/16 EPGO287	Feb. 01, 2022	Jan. 31, 2023
☐	MVG	750 MHz Dipole	SID750	SN 03/15 DIP 0G750-355	Mar. 01, 2021	Feb. 28, 2024
☒	MVG	835 MHz Dipole	SID835	SN 03/15 DIP 0G835-347	Mar. 01, 2021	Feb. 28, 2024
☐	MVG	900 MHz Dipole	SID900	SN 03/15 DIP 0G900-348	Mar. 01, 2021	Feb. 28, 2024
☒	MVG	1800 MHz Dipole	SID1800	SN 03/15 DIP 1G800-349	Mar. 01, 2021	Feb. 28, 2024
☒	MVG	1900 MHz Dipole	SID1900	SN 03/15 DIP 1G900-350	Mar. 01, 2021	Feb. 28, 2024
☐	MVG	2000 MHz Dipole	SID2000	SN 03/15 DIP 2G000-351	Mar. 01, 2021	Feb. 28, 2024
☒	MVG	2450 MHz Dipole	SID2450	SN 03/15 DIP 2G450-352	Mar. 01, 2021	Feb. 28, 2024
☒	MVG	2600 MHz Dipole	SID2600	SN 03/15 DIP 2G600-356	Mar. 01, 2021	Feb. 28, 2024
☒	MVG	5000 MHz Dipole	SWG5500	SN 13/14 WGA 33	Mar. 01, 2021	Feb. 28, 2024
☒	MVG	Liquid measurement Kit	SCLMP	SN 21/15 OCPG 72	NCR	NCR
☒	MVG	Power Amplifier	N.A	AMPLISAR_28/14_003	NCR	NCR
☒	KEITHLEY	Millivoltmeter	2000	4072790	NCR	NCR
☒	R&S	Universal radio communication tester	CMU200	117858	Jul. 01, 2021	Jun. 30, 2022
☒	R&S	Wideband radio communication tester	CMW500	103917	Jul. 01, 2021	Jun. 30, 2022
☒	HP	Network Analyzer	8753D	3410J01136	Jul. 01, 2021	Jun. 30, 2022
☒	Agilent	PSG Analog Signal Generator	E8257D	MY51110112	Jul. 01, 2021	Jun. 30, 2022

☒	Agilent	Power meter	E4419B	MY45102538	Jul. 01, 2021	Jun. 30, 2022
☒	Agilent	Power sensor	E9301A	MY41495644	Jul. 01, 2021	Jun. 30, 2022
☒	Agilent	Power sensor	E9301A	US39212148	Jul. 01, 2021	Jun. 30, 2022
☒	MCLI/USA	Directional Coupler	CB11-20	0D2L51502	Jul. 17, 2020	Jul. 16, 2023

3. SAR Measurement Procedures

The measurement procedures are as follows:

<Conducted power measurement>

(a) For WWAN power measurement, use base station simulator to configure EUT WWAN transmission in conducted connection with RF cable, at maximum power in each supported wireless interface and frequency band.

(b) Read the WWAN RF power level from the base station simulator.

(c) For WLAN/Bluetooth power measurement, use engineering software to configure EUT WLAN/Bluetooth continuously transmission, at maximum RF power in each supported wireless interface and frequency band.

(d) Connect EUT RF port through RF cable to the power meter, and measure WLAN/Bluetooth output power.

<SAR measurement>

(a) Use base station simulator to configure EUT WWAN transmission in radiated connection, and engineering software to configure EUT WLAN/Bluetooth continuously transmission, at maximum RF power, in the highest power channel.

(b) Place the EUT in the positions as Appendix A demonstrates.

(c) Set scan area, grid size and other setting on the OPENSAR software.

(d) Measure SAR results for the highest power channel on each testing position.

(e) Find out the largest SAR result on these testing positions of each band.

(f) Measure SAR results for other channels in worst SAR testing position if the reported SAR of highest power channel is larger than 0.8 W/kg.

According to the test standard, the recommended procedure for assessing the peak spatial-average SAR value consists of the following steps:

(a) Power reference measurement

(b) Area scan

(c) Zoom scan

(d) Power drift measurement

3.1. Power Reference

The Power Reference Measurement and Power Drift Measurements are for monitoring the power drift of the device under test in the batch process. The minimum distance of probe sensors to surface determines the closest measurement point to phantom surface. This distance cannot be smaller than the distance of sensor calibration points to probe tip as defined in the probe properties.

3.2. Area scan & Zoom scan

The area scan is a 2D scan to find the hot spot location on the DUT. The zoom scan is a 3D scan above the hot spot to calculate the 1g and 10g SAR value.

Measurement of the SAR distribution with a grid of 8 to 16 mm * 8 to 16 mm and a constant distance to the inner surface of the phantom. Since the sensors cannot directly measure at the inner phantom surface, the values between the sensors and the inner phantom surface are extrapolated. With these values the area of the maximum SAR is calculated by an interpolation scheme. Around this point, a cube of 30 * 30 *30 mm or 32 * 32 * 32 mm is assessed by measuring 5 or 8 * 5 or 8 * 4 or 5 mm. With these data, the peak spatial-average SAR value can be calculated.

From the scanned SAR distribution, identify the position of the maximum SAR value, in addition identify the positions of any local maxima with SAR values within 2 dB of the maximum value that will not be within the zoom scan of other peaks; additional peaks shall be measured only when the primary peak is within 2 dB of the SAR compliance limit (e.g., 1 W/kg for 1,6 W/kg 1 g limit, or 1,26 W/kg for 2 W/kg, 10 g limit).

Area scan & Zoom scan scan parameters extracted from FCC KDB 865664 D01 SAR measurement 100 MHz to 6 GHz.

<table>
<tr><td colspan="3"></td><td>≤ 3 GHz</td><td>> 3 GHz</td></tr>
<tr><td colspan="3">Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface</td><td>5 ± 1 mm</td><td>½·δ·ln(2) ± 0.5 mm</td></tr>
<tr><td colspan="3">Maximum probe angle from probe axis to phantom surface normal at the measurement location</td><td>30° ± 1°</td><td>20° ± 1°</td></tr>
<tr><td colspan="3" rowspan="2">Maximum area scan spatial resolution: Δx_{Area}, Δy_{Area}</td><td>≤ 2 GHz: ≤ 15 mm
2 – 3 GHz: ≤ 12 mm</td><td>3 – 4 GHz: ≤ 12 mm
4 – 6 GHz: ≤ 10 mm</td></tr>
<tr><td colspan="2">When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be ≤ the corresponding x or y dimension of the test device with at least one measurement point on the test device.</td></tr>
<tr><td colspan="3">Maximum zoom scan spatial resolution: Δx_{Zoom}, Δy_{Zoom}</td><td>≤ 2 GHz: ≤ 8 mm
2 – 3 GHz: ≤ 5 mm*</td><td>3 – 4 GHz: ≤ 5 mm*
4 – 6 GHz: ≤ 4 mm*</td></tr>
<tr><td rowspan="3">Maximum zoom scan spatial resolution, normal to phantom surface</td><td colspan="2">uniform grid: $\Delta z_{Zoom}(n)$</td><td>≤ 5 mm</td><td>3 – 4 GHz: ≤ 4 mm
4 – 5 GHz: ≤ 3 mm
5 – 6 GHz: ≤ 2 mm</td></tr>
<tr><td rowspan="2">graded grid</td><td>$\Delta z_{Zoom}(1)$: between 1st two points closest to phantom surface</td><td>≤ 4 mm</td><td>3 – 4 GHz: ≤ 3 mm
4 – 5 GHz: ≤ 2.5 mm
5 – 6 GHz: ≤ 2 mm</td></tr>
<tr><td>$\Delta z_{Zoom}(n>1)$: between subsequent points</td><td colspan="2">≤ 1.5·$\Delta z_{Zoom}(n-1)$</td></tr>
<tr><td>Minimum zoom scan volume</td><td colspan="2">x, y, z</td><td>≥ 30 mm</td><td>3 – 4 GHz: ≥ 28 mm
4 – 5 GHz: ≥ 25 mm
5 – 6 GHz: ≥ 22 mm</td></tr>
<tr><td colspan="5">Note: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details.
* When zoom scan is required and the reported SAR from the area scan based 1-g SAR estimation procedures of KDB 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 mm zoom scan resolution may be applied, respectively, for 2 GHz to 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.</td></tr>
</table>

3.3. Description of interpolation/extrapolation scheme

The local SAR inside the phantom is measured using small dipole sensing elements inside a probe body. The probe tip must not be in contact with the phantom surface in order to minimise measurements errors, but the highest local SAR will occur at the surface of the phantom.
An extrapolation is using to determinate this highest local SAR values. The extrapolation is based on a fourth-order least-square polynomial fit of measured data. The local SAR value is then extrapolated from the liquid surface with a 1 mm step.
The measurements have to be performed over a limited time (due to the duration of the battery) so the step of measurement is high. It could vary between 5 and 8 mm. To obtain an accurate assessment of the maximum SAR averaged over 10 grams and 1 gram requires a very fine resolution in the three dimensional scanned data array.

3.4. Volumetric Scan

The volumetric scan consists to a full 3D scan over a specific area. This 3D scan is useful form multi Tx SAR measurement. Indeed, it is possible with OpenSAR to add, point by point, several volumetric scan to calculate the SAR value of the combined measurement as it is define in the standard IEEE1528 and IEC62209.

3.5. Power Drift

All SAR testing is under the EUT install full charged battery and transmit maximum output power. In OpenSAR measurement software, the power reference measurement and power drift measurement procedures are used for monitoring the power drift of EUT during SAR test. Both these procedures measure the field at a specified reference position before and after the SAR testing. The software will calculate the field difference in V/m. If the power drifts more than ±5%, the SAR will be retested.

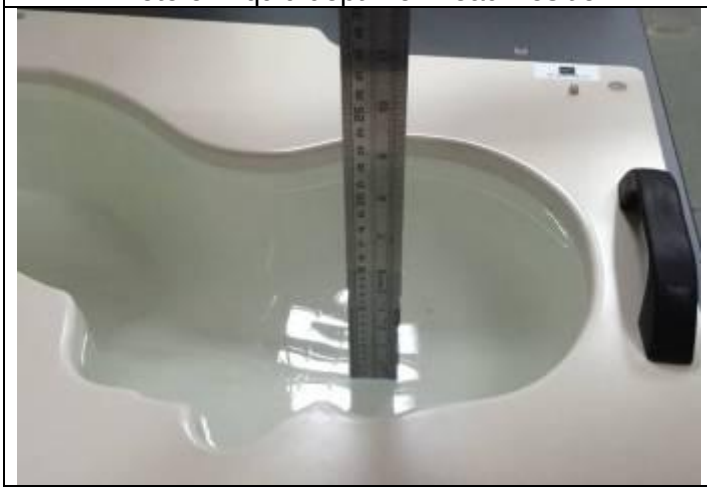
4. System Verification Procedure

4.1. Tissue Verification

The following tissue formulations are provided for reference only as some of the parameters have not been thoroughly verified. The composition of ingredients may be modified accordingly to achieve the desired target tissue parameters required for routine SAR evaluation.

Ingredients (% of weight)	Head Tissue									
Frequency Band (MHz)	750	835	900	1800	1900	2000	2450	2600	5200	5800
Water	34.40	34.40	34.40	55.36	55.36	57.87	57.87	57.87	65.53	65.53
NaCl	0.79	0.79	0.79	0.35	0.35	0.16	0.16	0.16	0.00	0.00
1,2-Propanediol	64.81	64.81	64.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Triton X-100	0.00	0.00	0.00	30.45	30.45	19.97	19.97	19.97	24.24	24.24
DGBE	0.00	0.00	0.00	13.84	13.84	22.00	22.00	22.00	10.23	10.23

For SAR measurement of the field distribution inside the phantom, the phantom must be filled with homogeneous tissue simulating liquid to a depth of at least 15 cm. For head SAR testing, the liquid depth from the ear reference point (ERP) of the phantom to the liquid top surface is larger than 15 cm.

Photo of Liquid depth for Head Position	Photo of Liquid depth for Body Position
	

4.1.1. Tissue Dielectric Parameter Check Results

The simulating liquids should be checked at the beginning of a series of SAR measurements to determine of the dielectric parameter are within the tolerances of the specified target values. The measured conductivity and relative permittivity should be within ±5% of the target values.

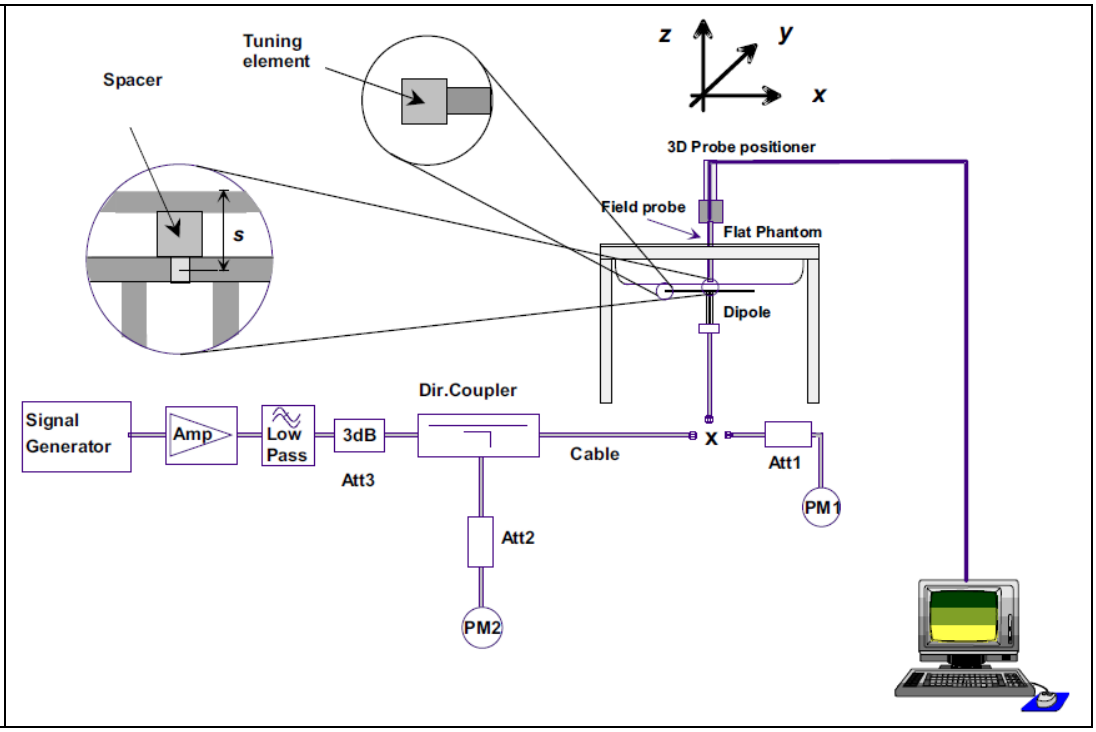
Tissue Type	Measured Frequency (MHz)	Target Tissue		Measured Tissue		Liquid Temp.	Test Date
		εr (±5%)	σ (S/m) (±5%)	εr	σ (S/m)		
Head 850	835	41.50 (39.43~43.58)	0.90 (0.86~0.95)	42.47	0.92	21.6 °C	Mar. 04, 2022
Head 1800	1800	40.00 (38.00~42.00)	1.40 (1.33~1.47)	39.08	1.40	21.8 °C	Feb. 26, 2022
Head 1900	1900	40.00 (38.00~42.00)	1.40 (1.33~1.47)	38.44	1.46	21.8 °C	Mar. 10, 2022
Head 2450	2450	39.20 (37.24~41.16)	1.80 (1.71~1.89)	38.94	1.81	21.6 °C	Mar. 02, 2022
Head 2600	2600	39.01 (37.06~40.96)	1.96 (1.86~2.06)	38.75	2.03	21.4 °C	Mar. 03, 2022
Head 5200	5200	36.00 (34.20~37.80)	4.66 (4.43~4.89)	36.74	4.77	21.4 °C	Mar. 08, 2022
Head 5800	5800	35.30 (33.54~37.07)	5.27 (5.01~5.53)	35.65	5.44	21.6 °C	Mar. 09, 2022

NOTE: The dielectric parameters of the tissue-equivalent liquid should be measured under similar ambient conditions and within 2 °C of the conditions expected during the SAR evaluation to satisfy protocol requirements.

4.2. System Verification Procedure

The system verification is performed for verifying the accuracy of the complete measurement system and performance of the software. The dipole is connected to the signal source consisting of signal generator and amplifier via a directional coupler, N-connector cable and adaption to SMA. It is fed with a power of 100mW (below 5GHz) or 100mW (above 5GHz). To adjust this power a power meter is used. The power sensor is connected to the cable before the system verification to measure the power at this point and do adjustments at the signal generator. At the outputs of the directional coupler both return loss as well as forward power are controlled during the system verification to make sure that emitted power at the dipole is kept constant. This can also be checked by the power drift measurement after the test (result on plot).

The system verification is shown as below picture:



4.2.1. System Verification Results

Comparing to the original SAR value provided by SATIMO, the verification data should be within its specification of ±10%. Below table shows the target SAR and measured SAR after normalized to 1W input power. The table below indicates the system performance verification can meet the variation criterion and the plots can be referred to Appendix B of this report.

System Verification	Target SAR (1W) (±10%)		Measured SAR (Normalized to 1W)		Liquid Temp.	Test Date
	1-g (W/Kg)	10-g (W/Kg)	1-g (W/Kg)	10-g (W/Kg)		
835MHz	9.84 (8.86~10.82)	6.22 (5.60~6.84)	10.69	5.78	21.6 °C	Mar. 04, 2022
1800MHz	37.96 (34.17~41.75)	19.81 (17.83~21.79)	34.94	19.59	21.8 °C	Feb. 26, 2022
1900MHz	40.37 (36.34~44.40)	20.48 (18.44~22.52)	38.64	18.92	21.8 °C	Mar. 10, 2022
2450MHz	53.69 (48.33~59.05)	23.94 (21.55~26.33)	50.97	22.24	21.6 °C	Mar. 02, 2022
2600MHz	55.83 (50.25~61.41)	24.19 (21.78~26.60)	50.68	26.07	21.4 °C	Mar. 03, 2022
5200MHz	162.34 (146.11~178.57)	55.42 (49.88~60.96)	170.06	53.73	21.4 °C	Mar. 08, 2022
5800MHz	178.89 (161.01~196.77)	59.32 (53.39~65.25)	192.02	62.50	21.6 °C	Mar. 09, 2022

5. SAR Measurement variability and uncertainty

5.1. SAR measurement variability

Per KDB865664 D01 SAR measurement 100 MHz to 6 GHz, SAR measurement variability must be assessed for each frequency band, which is determined by the SAR probe calibration point and tissue-equivalent medium used for the device measurements. The additional measurements are repeated after the completion of all measurements requiring the same head or body tissue-equivalent medium in a frequency band. The test device should be returned to ambient conditions (normal room temperature) with the battery fully charged before it is re-mounted on the device holder for the repeated measurement(s) to minimize any unexpected variations in the repeated results.

1) Repeated measurement is not required when the original highest measured SAR is < 0.80 W/kg; steps 2) through 4) do not apply.
2) When the original highest measured SAR is ≥ 0.80 W/kg, repeat that measurement once.
3) Perform a second repeated measurement only if the ratio of largest to smallest SAR for the original and first repeated measurements is > 1.20 or when the original or repeated measurement is ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).
4) Perform a third repeated measurement only if the original, first or second repeated measurement is ≥1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.

5.2. SAR measurement uncertainty

Per KDB865664 D01 SAR Measurement 100 MHz to 6 GHz, when the highest measured 1-g SAR within a frequency band is < 1.5 W/kg, the extensive SAR measurement uncertainty analysis described in IEEE Std 1528-2013 is not required in SAR reports submitted for equipment approval. The equivalent ratio (1.5/1.6) is applied to extremity and occupational exposure conditions.

6. RF Exposure Positions

6.1. 4G Tablet host platform exposure conditions

Refer to KDB616217 D04, when the modular approach is used, transmitters and modules must be initially tested for standalone operations in generic host conditions according to the following minimum test separation distance and antenna installation requirements for incorporation in the tablet platform. The separation distance required for incorporation in qualified hosts is described in KDB 447498; item 5) of section 4.1 and item 1) of section 5.2.2 etc.

- ≤ 5 mm between the antenna and user for both back surface and edge exposure conditions
- the antennas used by the host must have been tested for equipment approval or qualify for SAR test exclusion
- the antenna polarization, physical orientation, rotation and installation configurations used by the host must have been tested for compliance or qualify for test exclusion
- when the *SAR Test Exclusion Threshold* in KDB 447498 applies, a *test separation distance* of 5 mm is required to determine test exclusion for the tablet platform

The antennas embedded in tablets are typically ≤ 5mm from the outer housing. The required antenna to user test separation distance is a “not to exceed test” distance required to apply the modular approach. Instead of the typical zero gap tablet edge test requirement between the edge of a tablet and the user, when an antenna has been tested at ≤ 5 mm according to the modular approach it can be incorporated into tablets with at least twice the tested distance from the outer housing of the tablet edge; otherwise, the tablet edge zero gap test requirement applies. When the dedicated host approach is applied, the back surface and edges of the tablet should be tested for SAR compliance with the tablet touching the phantom.

7. RF Output Power

7.1. GSM Conducted Power

Band GSM850	Burst-Averaged output Power (dBm)				Frame-Averaged output Power (dBm)			
Tx Channel	Tune-up	128	189	251	Tune-up	128	189	251
Frequency (MHz)	(dBm)	824.2	836.4	848.8	(dBm)	824.2	836.4	848.8
GSM (GMSK)	33.00	32.39	32.53	32.40	23.97	23.36	23.50	23.37
GPRS(GMSK, 1 TS)	32.50	32.38	32.49	32.39	23.47	23.35	23.46	23.36
GPRS(GMSK, 2 TS)	30.50	30.22	30.35	30.27	24.48	24.20	24.33	24.25
GPRS(GMSK, 3 TS)	28.50	28.31	28.45	28.37	24.24	24.05	24.19	24.11
GPRS(GMSK, 4 TS)	26.50	26.19	26.26	26.25	23.49	23.18	23.25	23.24
EDGE(GMSK, 1 TS)	25.50	24.60	25.07	25.21	16.47	15.57	16.04	16.18
EDGE(GMSK, 2 TS)	25.50	24.88	24.90	25.38	19.48	18.86	18.88	19.36
EDGE(GMSK, 3 TS)	24.00	23.73	23.65	23.75	19.74	19.47	19.39	19.49
EDGE(GMSK, 4 TS)	22.00	21.55	21.95	21.40	18.99	18.54	18.94	18.39
Band GSM1900	Burst-Averaged output Power (dBm)				Frame-Averaged output Power (dBm)			
Tx Channel	Tune-up	512	661	810	Tune-up	512	661	810
Frequency (MHz)	(dBm)	1850.2	1880.0	1909.8	(dBm)	1850.2	1880.0	1909.8
GSM (GMSK)	29.50	29.29	29.23	29.20	20.47	20.26	20.20	20.17
GPRS(GMSK, 1 TS)	29.50	29.24	29.21	29.15	20.47	20.21	20.18	20.12
GPRS(GMSK, 2 TS)	27.50	27.19	26.81	26.50	21.48	21.17	20.79	20.48
GPRS(GMSK, 3 TS)	26.00	25.50	25.14	24.81	21.74	21.24	20.88	20.55
GPRS(GMSK, 4 TS)	23.50	23.40	22.98	22.75	20.49	20.39	19.97	19.74
EDGE(GMSK, 1 TS)	26.00	25.01	25.53	25.04	16.97	15.98	16.50	16.01
EDGE(GMSK, 2 TS)	26.00	24.99	25.50	25.10	19.98	18.97	19.48	19.08
EDGE(GMSK, 3 TS)	24.00	23.45	23.50	23.20	19.74	19.19	19.24	18.94
EDGE(GMSK, 4 TS)	22.00	20.79	21.53	20.98	18.99	17.78	18.52	17.97

Note: The frame-averaged power is linearly scaled the maximum burst averaged power over 8 time slots.
The calculated method are shown as below:
Frame-averaged power = Maximum burst averaged power (1 TS) - 9.03 dB
Frame-averaged power = Maximum burst averaged power (2 TS) - 6.02 dB
Frame-averaged power = Maximum burst averaged power (3 TS) - 4.26 dB
Frame-averaged power = Maximum burst averaged power (4 TS) - 3.01 dB

7.2. WCDMA Conducted Power

WCDMA Band 2	Burst-Averaged output Power (dBm)			
Tx Channel	Tune-up	9262	9400	9538
Frequency (MHz)		1852.4	1880	1907.6
RMC12.2K	22.50	22.36	22.47	22.42
HSDPA Sub 1	22.00	21.57	21.61	21.47
HSDPA Sub 2	21.50	21.05	21.45	21.24
HSDPA Sub 3	21.50	20.88	21.17	20.90
HSDPA Sub 4	21.00	20.65	20.78	20.86
HSUPA Sub 1	22.00	21.65	21.66	21.48
HSUPA Sub 2	22.00	21.66	21.81	21.63
HSUPA Sub 3	22.00	21.15	21.65	21.28
HSUPA Sub 4	22.00	21.56	21.79	21.62
HSUPA Sub 5	22.00	21.58	21.48	21.09
WCDMA Band 4	Burst-Averaged output Power (dBm)			
Tx Channel	Tune-up	1312	1413	1513
Frequency (MHz)		1712.4	1732.6	1752.6
RMC12.2K	23.00	22.66	22.55	22.62
HSDPA Sub 1	22.00	21.88	21.77	21.74
HSDPA Sub 2	22.00	21.59	21.60	21.47
HSDPA Sub 3	21.50	21.14	21.07	21.15
HSDPA Sub 4	21.50	20.88	21.21	20.86
HSUPA Sub 1	22.00	21.84	21.64	21.61
HSUPA Sub 2	22.00	21.78	21.72	21.72
HSUPA Sub 3	22.00	21.66	21.19	21.38
HSUPA Sub 4	22.00	21.65	21.66	21.48
HSUPA Sub 5	22.00	21.57	21.48	21.46
WCDMA Band 5	Burst-Averaged output Power (dBm)			
Tx Channel	Tune-up	4132	4182	4233
Frequency (MHz)		826.4	836.4	846.6
RMC12.2K	23.00	22.49	22.65	22.51
HSDPA Sub 1	22.50	22.25	21.68	21.96
HSDPA Sub 2	22.00	21.88	21.53	21.83
HSDPA Sub 3	22.00	21.76	21.35	21.55
HSDPA Sub 4	22.00	21.61	21.09	21.43

HSUPA Sub 1	22.50	22.10	21.49	21.83
HSUPA Sub 2	22.50	22.20	21.66	21.97
HSUPA Sub 3	22.50	22.10	21.35	21.67
HSUPA Sub 4	22.50	22.16	21.42	21.88
HSUPA Sub 5	22.00	21.91	21.51	21.65

7.3. LTE Conducted Power

Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		18607/1850.7	18900/1880	19193/1909.3
LTE Band 2	1.4MHz	QPSK	1	0	23.50	23.09	23.25	23.33
			1	2	23.50	23.14	23.22	23.31
			1	5	23.50	23.15	23.19	23.34
			3	0	23.50	23.13	23.15	23.21
			3	1	23.50	23.18	23.18	23.21
			3	2	23.50	23.13	23.11	23.27
			6	0	22.50	22.10	22.04	22.24
		16QAM	1	0	23.50	23.14	22.24	22.54
			1	2	23.50	23.11	22.17	22.54
			1	5	23.50	23.20	22.20	22.58
			3	0	23.00	22.37	22.13	22.61
			3	1	23.00	22.34	22.10	22.63
			3	2	23.00	22.35	22.08	22.55
			6	0	21.50	21.26	21.23	21.35
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		18615/1851.5	18900/1880	19185/1908.5
LTE Band 2	3MHz	QPSK	1	0	23.50	23.07	23.25	23.27
			1	7	23.50	23.13	23.22	23.35
			1	14	23.50	23.05	23.23	23.35
			8	0	22.50	22.10	22.03	22.08
			8	4	22.50	22.10	22.00	22.24
			8	7	22.50	22.10	22.14	22.20
			15	0	22.50	22.17	21.99	22.18
		16QAM	1	0	23.50	23.20	22.18	22.45
			1	7	23.50	23.22	22.21	22.53
			1	14	23.50	23.25	22.17	22.57

			8	0	21.50	21.11	21.37	21.31
			8	4	21.50	21.11	21.30	21.21
			8	7	21.50	20.99	21.27	21.23
			15	0	21.50	21.31	21.16	21.23
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		18625/1852.5	18900/1880	19175/1907.5
LTE Band 2	5MHz	QPSK	1	0	23.50	23.04	23.27	22.85
			1	12	23.50	22.95	23.18	22.94
			1	24	23.50	22.96	23.35	22.98
			12	0	22.50	22.16	22.12	22.13
			12	6	22.50	22.18	22.11	22.00
			12	11	22.50	22.22	21.98	22.05
			25	0	22.50	22.16	22.11	22.05
		16QAM	1	0	22.50	22.40	21.78	22.15
			1	12	22.50	22.41	21.78	22.13
			1	24	22.50	22.34	21.88	22.20
			12	0	21.50	21.19	21.14	21.24
			12	6	21.50	21.09	21.06	21.23
			12	11	21.50	20.98	21.05	21.18
			25	0	21.50	21.09	21.29	21.16
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		18650/1855	18900/1880	19150/1905
LTE Band 2	10MHz	QPSK	1	0	23.50	23.07	23.11	23.32
			1	24	23.50	23.11	23.07	23.35
			1	49	23.50	23.10	23.10	23.44
			25	0	22.50	22.18	22.20	22.17
			25	12	22.50	22.03	22.01	22.21
			25	24	22.50	22.04	22.17	22.17
			50	0	22.50	22.10	22.00	22.04
		16QAM	1	0	23.50	23.28	22.19	22.08
			1	24	23.50	23.32	22.15	22.19
			1	49	23.50	23.30	22.27	22.25
			25	0	22.00	21.12	21.29	21.28
			25	12	22.00	21.46	21.24	21.24
			25	24	22.00	21.00	21.80	21.25
			50	0	22.00	21.54	21.32	21.32

Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		18675/1857.5	18900/1880	19125/1902.5
LTE Band 2	15MHz	QPSK	1	0	23.50	23.05	23.26	23.07
			1	37	23.50	23.02	23.17	22.98
			1	74	23.50	23.02	23.19	23.05
			36	0	22.50	22.13	22.07	22.05
			36	18	22.50	22.12	22.15	22.13
			36	37	22.50	22.09	22.19	22.10
			75	0	22.50	22.17	22.12	22.16
		16QAM	1	0	23.50	23.26	22.30	22.76
			1	37	23.50	23.13	22.12	22.84
			1	74	23.50	23.23	22.18	22.86
			36	0	22.00	21.69	21.34	21.20
			36	18	22.00	21.11	21.38	21.23
			36	37	22.00	21.63	21.87	21.14
			75	0	21.50	21.09	21.22	21.29

Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		18700/1860	18900/1880	19100/1900
LTE Band 2	20MHz	QPSK	1	0	23.50	23.29	23.13	23.24
			1	49	23.50	23.20	23.00	23.24
			1	99	23.50	23.23	23.25	23.35
			50	0	22.50	22.17	22.16	22.13
			50	24	22.50	22.06	22.15	22.14
			50	49	22.50	22.18	22.17	22.07
			100	0	22.50	22.07	22.09	22.04
		16QAM	1	0	22.50	21.94	21.81	22.10
			1	49	22.50	21.75	21.88	22.04
			1	99	22.50	21.81	21.87	22.13
			50	0	22.00	21.71	21.20	21.28
			50	24	22.00	21.33	21.24	21.13
			50	49	22.00	21.28	21.22	21.30
			100	0	21.50	21.26	21.24	21.18

Band	Band Width	Modulation	RB Configuration	Tune-up (dBm)	Channel/Frequency(MHz)

			RB Size	RB Offset		19957/1710.7	20175/1732.5	20393/1754.3
LTE Band 4	1.4MHz	QPSK	1	0	23.50	23.35	23.01	23.36
			1	5	23.50	23.39	23.04	23.36
			3	0	23.50	23.30	22.97	23.14
			3	2	23.50	23.33	22.98	23.19
			6	0	22.50	22.11	22.00	22.11
		16QAM	1	0	23.50	23.24	22.78	22.65
			1	5	23.50	23.30	22.82	22.57
			3	0	22.50	22.41	22.25	22.46
			3	2	22.50	22.48	22.22	22.41
			6	0	21.50	21.40	21.14	21.24
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		19965/1711.5	20175/1732.5	20385/1753.5
LTE Band 4	3MHz	QPSK	1	0	23.50	23.27	22.98	23.34
			1	14	23.50	23.08	23.04	23.36
			8	0	22.50	22.18	22.00	22.03
			8	7	22.50	22.17	22.05	22.03
			15	0	22.50	22.14	22.03	22.04
		16QAM	1	0	23.50	23.27	22.73	22.60
			1	14	23.50	23.17	22.81	22.58
			8	0	22.00	21.19	21.80	21.22
			8	7	22.00	21.56	21.37	21.23
			15	0	21.50	21.34	21.23	21.13
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		19975/1712.5	20175/1732.5	20375/1752.5
LTE Band 4	5MHz	QPSK	1	0	23.50	23.16	23.18	23.00
			1	24	23.50	22.94	23.13	23.04
			12	0	22.50	22.30	22.10	22.05
			12	11	22.50	22.11	22.12	22.09
			25	0	22.50	22.10	22.14	22.11
		16QAM	1	0	22.50	22.49	21.72	22.35
			1	24	22.50	22.37	21.81	22.29
			12	0	22.00	21.20	21.50	21.17
			12	11	22.00	21.53	21.03	21.18
			25	0	22.00	21.57	21.29	21.17

Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		20000/1715	20175/1732.5	20350/1750
LTE Band 4	10MHz	QPSK	1	0	23.50	23.29	23.01	23.35
			1	49	23.50	23.11	23.08	23.42
			25	0	22.50	22.09	21.98	22.08
			25	24	22.50	22.14	22.05	22.04
			50	0	22.50	22.07	22.01	22.25
		16QAM	1	0	23.50	23.42	22.12	22.37
			1	49	23.50	23.33	22.18	22.41
			25	0	22.00	21.61	21.67	21.21
			25	24	22.00	21.12	21.20	21.17
			50	0	21.50	21.08	21.24	21.31
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		20025/1717.5	20175/1732.5	20325/1747.5
LTE Band 4	15MHz	QPSK	1	0	23.50	23.30	23.09	23.01
			1	74	23.50	23.14	23.09	23.07
			36	0	22.50	22.08	21.98	22.06
			36	37	22.50	22.09	22.06	22.14
			75	0	22.50	22.12	22.11	22.14
		16QAM	1	0	23.50	23.45	22.13	22.75
			1	74	23.50	23.32	22.12	22.83
			36	0	21.50	21.17	21.29	21.13
			36	37	21.50	21.20	21.31	21.15
			75	0	21.50	21.23	21.23	21.27
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		20050/1720	20175/1732.5	20300/1745
LTE Band 4	20MHz	QPSK	1	0	23.50	23.48	23.00	22.96
			1	99	23.50	23.21	22.95	23.05
			50	0	22.50	21.98	22.11	22.04
			50	49	22.50	22.14	22.19	22.19
			100	0	22.50	22.19	22.11	22.18
		16QAM	1	0	22.50	21.96	22.26	22.33
			1	99	22.50	21.74	22.23	22.32
			50	0	22.00	21.24	21.14	21.11

			50	49	22.00	21.75	21.16	21.25
			100	0	21.50	21.11	21.13	21.18

Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		20407/824.7	20525/836.5	20643/848.3
LTE Band 5	1.4MHz	QPSK	1	0	23.00	22.75	22.64	22.80
			1	2	23.00	22.79	22.65	22.83
			1	5	23.00	22.82	22.68	22.81
			3	0	23.00	22.76	22.63	22.60
			3	1	23.00	22.82	22.69	22.60
			3	2	23.00	22.70	22.70	22.63
			6	0	22.00	21.76	21.65	21.64
		16QAM	1	0	23.00	22.67	22.28	22.63
			1	2	23.00	22.65	22.32	22.66
			1	5	23.00	22.67	22.34	22.63
			3	0	22.50	21.90	21.74	22.05
			3	1	22.50	21.91	21.74	22.08
			3	2	22.50	21.92	21.65	22.02
			6	0	21.50	20.61	21.15	20.87
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		20415/825.5	20525/836.5	20635/847.5
LTE Band 5	3MHz	QPSK	1	0	23.00	22.78	22.69	22.93
			1	7	23.00	22.78	22.83	22.90
			1	14	23.00	22.82	22.72	22.91
			8	0	22.00	21.71	21.71	21.52
			8	4	22.00	21.78	21.65	21.56
			8	7	22.00	21.81	21.54	21.65
			15	0	22.00	21.77	21.55	21.67
		16QAM	1	0	23.00	22.59	21.75	22.59
			1	7	23.00	22.48	21.70	22.63
			1	14	23.00	22.52	21.65	22.45
			8	0	21.50	20.54	20.66	20.59
			8	4	21.50	20.57	21.19	20.50
			8	7	21.50	20.55	21.16	20.54
			15	0	21.50	20.69	21.17	20.58
Band	Band	Modulation	RB		Tune-up	Channel/Frequency(MHz)		

	Width		Configuration		(dBm)			
			RB Size	RB Offset		20425/826.5	20525/836.5	20625/846.5
LTE Band 5	5MHz	QPSK	1	0	23.00	22.50	22.80	22.37
			1	12	23.00	22.61	22.73	22.57
			1	24	23.00	22.63	22.72	22.39
			12	0	22.00	21.73	21.72	21.61
			12	6	22.00	21.71	21.52	21.59
			12	11	22.00	21.69	21.48	21.51
			25	0	22.00	21.63	21.56	21.65
		16QAM	1	0	22.00	21.83	21.30	21.56
			1	12	22.00	21.80	21.31	21.54
			1	24	22.00	21.67	21.30	21.59
			12	0	21.50	20.56	20.53	20.61
			12	6	21.50	20.55	21.04	20.54
			12	11	21.50	20.52	21.02	20.44
			25	0	21.50	20.69	21.25	20.46
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		20450/829	20525/836.5	20600/844
LTE Band 5	10MHz	QPSK	1	0	23.00	22.75	22.61	22.91
			1	24	23.00	22.65	22.68	22.82
			1	49	23.00	22.77	22.73	22.78
			25	0	22.00	21.64	21.74	21.68
			25	12	22.00	21.65	21.56	21.51
			25	24	22.00	21.64	21.69	21.65
			50	0	22.00	21.58	21.57	21.57
		16QAM	1	0	23.00	22.74	21.70	21.63
			1	24	23.00	22.64	21.62	21.51
			1	49	23.00	22.77	21.78	21.58
			25	0	21.50	20.58	20.63	20.60
			25	12	21.50	21.10	21.18	20.41
			25	24	21.50	20.55	20.71	20.57
			50	0	21.50	21.12	21.22	20.42

Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		20775/2502.5	21100/2535	21425/2567.5

LTE Band 7	5MHz	QPSK	1	0	23.50	23.12	22.91	23.11
			1	12	23.50	23.08	22.81	23.11
			1	24	23.50	23.10	22.92	23.15
			12	0	22.50	22.00	21.88	22.14
			12	6	22.50	22.03	21.93	22.06
			12	11	22.50	22.06	22.04	22.17
			25	0	22.50	22.05	21.96	22.09
		16QAM	1	0	22.50	22.23	22.19	22.20
			1	12	22.50	22.23	22.17	22.18
			1	24	22.50	22.19	22.19	22.17
			12	0	21.50	20.97	21.12	21.09
			12	6	21.50	20.98	21.18	21.12
			12	11	21.50	21.01	21.10	21.08
			25	0	21.50	21.13	21.10	21.32

Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		20800/2505	21100/2535	21400/2565
LTE Band 7	10MHz	QPSK	1	0	23.50	22.90	23.00	23.33
			1	24	23.50	22.89	23.12	23.26
			1	49	23.50	22.95	23.06	23.32
			25	0	22.50	22.06	22.05	22.00
			25	12	22.50	21.99	22.06	22.00
			25	24	22.50	22.07	22.00	22.14
			50	0	22.50	21.94	22.01	22.09
		16QAM	1	0	23.50	23.05	22.12	22.19
			1	24	23.50	23.08	22.08	22.17
			1	49	23.50	23.20	22.16	22.23
			25	0	21.50	20.95	21.15	21.18
			25	12	21.50	21.09	21.13	21.19
			25	24	21.50	21.11	21.15	21.23
			50	0	21.50	21.10	21.17	21.14

Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		20825/2507.5	21100/2535	21375/2562.5
LTE Band 7	15MHz	QPSK	1	0	23.50	22.86	23.08	23.06
			1	37	23.50	22.89	23.02	23.06
			1	74	23.50	22.99	23.15	23.04
			36	0	22.50	22.00	21.98	22.05

			36	18	22.50	22.08	21.95	22.04
			36	37	22.50	22.00	22.03	22.09
			75	0	22.50	22.02	21.91	22.04
		16QAM	1	0	23.50	23.19	21.95	22.89
			1	37	23.50	23.18	21.96	22.81
			1	74	23.50	23.30	22.02	22.92
			36	0	21.50	21.12	21.14	21.27
			36	18	21.50	21.09	21.17	21.22
			36	37	21.50	21.17	21.13	21.29
			75	0	21.50	21.20	21.17	21.28

Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		20850/2510	21100/2535	21350/2560
LTE Band 7	20MHz	QPSK	1	0	23.50	23.00	23.15	23.13
			1	49	23.50	23.03	22.94	23.09
			1	99	23.50	22.99	23.12	23.15
			50	0	22.50	21.95	21.98	22.10
			50	24	22.50	22.17	21.91	21.99
			50	49	22.50	22.00	22.08	22.11
			100	0	22.50	22.12	21.99	22.09
		16QAM	1	0	22.50	21.83	22.15	22.04
			1	49	22.50	21.91	22.03	22.12
			1	99	22.50	21.83	22.13	22.14
			50	0	21.50	21.19	21.11	21.22
			50	24	21.50	21.24	21.14	21.19
			50	49	21.50	21.20	21.07	21.21
			100	0	21.50	21.15	21.11	21.17

Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		26047/1850.7	26365/1882.5	26683/1914.3
LTE Band 25	1.4MHz	QPSK	1	0	23.00	22.65	22.64	22.84
			1	2	23.00	22.63	22.65	22.76
			1	5	23.00	22.40	22.62	22.74
			3	0	23.00	22.58	22.61	22.63
			3	1	23.00	22.62	22.65	22.55
			3	2	23.00	22.52	22.55	22.61
			6	0	22.00	21.50	21.47	21.48

		16QAM	1	0	23.00	22.54	21.72	21.65
			1	2	23.00	22.53	21.68	21.59
			1	5	23.00	22.48	21.63	21.67
			3	0	22.00	21.76	21.58	21.50
			3	1	22.00	21.75	21.53	21.47
			3	2	22.00	21.76	21.61	21.54
			6	0	21.50	21.07	20.67	20.70
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		26055/1851.5	26365/1882.5	26675/1913.5
LTE Band 25	3MHz	QPSK	1	0	23.00	22.48	22.74	22.80
			1	7	23.00	22.51	22.63	22.77
			1	14	23.00	22.46	22.62	22.74
			8	0	22.00	21.55	21.49	21.46
			8	4	22.00	21.53	21.46	21.51
			8	7	22.00	21.63	21.49	21.49
			15	0	22.00	21.49	21.58	21.48
		16QAM	1	0	23.00	22.63	21.63	21.94
			1	7	23.00	22.51	21.65	21.98
			1	14	23.00	22.67	21.59	21.92
			8	0	21.00	20.93	20.70	20.58
			8	4	21.00	20.92	20.66	20.64
			8	7	21.00	20.53	20.68	20.57
			15	0	21.50	21.07	20.56	20.62
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		26065/1852.5	26365/1882.5	26665/1912.5
LTE Band 25	5MHz	QPSK	1	0	23.00	22.42	22.68	22.36
			1	12	23.00	22.31	22.61	22.29
			1	24	23.00	22.44	22.64	22.35
			12	0	22.00	21.54	21.54	21.54
			12	6	22.00	21.54	21.56	21.38
			12	11	22.00	21.65	21.48	21.36
			25	0	22.00	21.51	21.51	21.53
		16QAM	1	0	22.00	21.79	21.25	21.47
			1	12	22.00	21.75	21.15	21.46
			1	24	22.00	21.77	21.21	21.50
			12	0	21.50	20.96	20.55	21.02

			12	6	21.50	20.53	20.54	20.60
			12	11	21.50	20.49	20.59	20.54
			25	0	21.00	20.60	20.72	20.57
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		26090/1855	26365/1882.5	26640/1910
LTE Band 25	10MHz	QPSK	1	0	23.00	22.51	22.57	22.79
			1	24	23.00	22.48	22.62	22.82
			1	49	23.00	22.51	22.63	22.76
			25	0	22.00	21.52	21.45	21.52
			25	12	22.00	21.59	21.45	21.52
			25	24	22.00	21.44	21.53	21.49
			50	0	22.00	21.50	21.55	21.56
		16QAM	1	0	23.00	22.67	21.57	21.58
			1	24	23.00	22.72	21.60	21.62
			1	49	23.00	22.78	21.65	21.61
			25	0	21.00	20.54	20.63	20.69
			25	12	21.00	20.51	20.60	20.55
			25	24	21.00	20.44	20.58	20.61
			50	0	21.00	20.62	20.68	20.60
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		26115/1857.5	26365/1882.5	26615/1907.5
LTE Band 25	15MHz	QPSK	1	0	23.00	22.59	22.70	22.35
			1	37	23.00	22.52	22.57	22.36
			1	74	23.00	22.46	22.68	22.35
			36	0	22.00	21.52	21.58	21.57
			36	18	22.00	21.55	21.47	21.50
			36	37	22.00	21.62	21.43	21.49
			75	0	22.00	21.59	21.56	21.55
		16QAM	1	0	23.00	22.74	21.64	22.37
			1	37	23.00	22.66	21.56	22.30
			1	74	23.00	22.72	21.63	22.32
			36	0	21.50	20.65	20.73	21.00
			36	18	21.50	20.56	20.81	20.68
			36	37	21.50	20.58	20.81	21.02
			75	0	21.00	20.59	20.72	20.71
Band	Band	Modulation	RB		Tune-up	Channel/Frequency(MHz)		

	Width		Configuration		(dBm)			
			RB Size	RB Offset		26140/1860	26365/1882.5	26590/1905
LTE Band 25	20MHz	QPSK	1	0	23.00	22.72	22.49	22.66
			1	49	23.00	22.66	22.44	22.70
			1	99	23.00	22.82	22.45	22.72
			50	0	22.00	21.55	21.61	21.57
			50	24	22.00	21.63	21.57	21.60
			50	49	22.00	21.50	21.51	21.49
			100	0	22.00	21.65	21.57	21.59
		16QAM	1	0	22.00	21.22	21.34	21.52
			1	49	22.00	21.22	21.13	21.45
			1	99	22.00	21.38	21.14	21.46
			50	0	21.50	20.71	20.64	20.61
			50	24	21.50	20.77	20.68	21.08
			50	49	21.50	20.62	20.55	20.66
			100	0	21.50	20.64	20.64	21.08

Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		26697/814.7	26740/819	26783/823.3
LTE Band 26a	1.4MHz	QPSK	1	0	21.50	21.07	21.01	21.23
			1	2	21.50	21.09	20.98	21.29
			1	5	21.50	21.10	21.05	21.24
			3	0	21.50	21.11	21.04	21.23
			3	1	21.50	21.06	21.04	21.25
			3	2	21.50	21.05	21.15	21.23
			6	0	20.50	19.90	19.83	20.07
		16QAM	1	0	21.50	20.02	21.22	20.66
			1	2	21.50	20.05	21.19	20.62
			1	5	21.50	20.17	21.20	20.57
			3	0	20.50	19.95	20.18	20.06
			3	1	20.50	19.90	20.21	20.09
			3	2	20.50	19.87	20.24	20.16
			6	0	20.00	19.01	19.66	18.98
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		26705/818.5	26740/819	26775/822.5

LTE Band 26a	3MHz	QPSK	1	0	21.50	21.08	20.84	21.26
			1	7	21.50	21.17	20.92	21.46
			1	14	21.50	20.94	20.93	21.44
			8	0	20.50	20.09	19.89	19.96
			8	4	20.50	20.12	19.81	20.06
			8	7	20.50	20.09	19.81	20.00
			15	0	20.50	20.13	19.92	20.08
		16QAM	1	0	21.50	21.02	20.55	19.89
			1	7	21.50	21.04	20.35	20.08
			1	14	21.50	20.95	20.35	20.12
			8	0	20.00	18.89	19.73	19.01
			8	4	20.00	19.03	19.90	19.01
			8	7	20.00	19.04	19.86	19.18
			15	0	20.00	19.03	19.59	19.12

Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		26715/816.5	26740/819	26765/821.5
LTE Band 26a	5MHz	QPSK	1	0	21.50	21.11	21.12	20.96
			1	12	21.50	20.97	20.99	21.00
			1	24	21.50	20.99	21.07	21.11
			12	0	20.50	19.99	20.02	20.12
			12	6	20.50	19.93	19.91	19.89
			12	11	20.50	20.07	19.98	20.00
			25	0	20.50	20.08	19.99	19.94
		16QAM	1	0	20.50	20.20	19.60	19.85
			1	12	20.50	20.27	19.61	19.91
			1	24	20.50	20.09	19.57	20.12
			12	0	19.50	18.97	19.00	19.02
			12	6	19.50	18.93	19.44	18.97
			12	11	19.50	18.90	18.97	19.05
			25	0	20.00	19.10	19.66	18.88

Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		/	26740/819	/
LTE Band 26a	10MHz	QPSK	1	0	21.50	/	21.06	/
			1	24	21.50	/	21.01	/
			1	49	21.50	/	21.23	/
			25	0	20.50	/	20.04	/

			25	12	20.50	/	19.87	/
			25	24	20.50	/	19.94	/
			50	0	20.00	/	19.88	/
		16QAM	1	0	21.50	/	20.99	/
			1	24	21.50	/	20.89	/
			1	49	21.50	/	21.03	/
			25	0	19.50	/	18.94	/
			25	12	19.50	/	19.46	/
			25	24	19.50	/	18.95	/
			50	0	19.50	/	19.47	/

Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		26797/824.7	26915/836.5	27033/848.3
LTE Band 26b	1.4MHz	QPSK	1	0	22.00	21.24	21.04	21.18
			1	2	22.00	21.31	21.08	21.16
			1	5	22.00	21.26	21.07	21.13
			3	0	22.00	21.26	21.06	21.02
			3	1	22.00	21.17	21.05	21.00
			3	2	22.00	21.28	21.12	20.97
			6	0	21.00	20.26	20.07	20.56
		16QAM	1	0	22.00	21.21	20.60	20.89
			1	2	22.00	21.09	20.53	21.58
			1	5	22.00	21.14	20.61	21.54
			3	0	21.50	20.39	19.99	20.37
			3	1	21.50	20.33	20.05	21.11
			3	2	21.50	20.42	20.07	21.02
			6	0	20.00	19.24	19.00	19.77
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		26805/825.5	26915/836.5	27025/847.5
LTE Band 26b	3MHz	QPSK	1	0	22.00	21.30	21.10	21.28
			1	7	22.00	21.31	21.05	21.26
			1	14	22.00	21.30	21.08	21.19
			8	0	21.00	20.34	20.03	19.86
			8	4	21.00	20.24	19.98	19.93
			8	7	21.00	20.13	19.98	20.54
			15	0	20.50	20.23	20.09	19.89

		16QAM	1	0	21.50	21.23	20.56	20.90
			1	7	21.50	21.21	20.62	20.72
			1	14	21.50	21.13	20.62	21.47
			8	0	20.00	19.12	19.26	19.56
			8	4	20.00	19.14	19.04	19.44
			8	7	20.00	19.03	19.21	19.49
			15	0	20.00	19.27	19.17	19.63
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		26815/826.5	26915/836.5	27015/846.5
LTE Band 26b	5MHz	QPSK	1	0	22.00	21.19	21.07	20.92
			1	12	22.00	21.13	21.03	20.86
			1	24	22.00	21.12	21.16	20.85
			12	0	20.50	20.16	20.07	20.05
			12	6	20.50	20.22	20.10	19.88
			12	11	20.50	20.17	20.17	19.91
			25	0	20.50	20.21	20.16	19.93
		16QAM	1	0	20.50	20.41	19.76	20.07
			1	12	20.50	20.40	19.70	19.80
			1	24	20.50	20.40	19.77	20.48
			12	0	20.00	19.09	19.02	18.97
			12	6	20.00	19.03	18.97	19.57
			12	11	20.00	19.04	18.97	19.62
			25	0	20.00	19.21	19.02	19.60
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		26840/829	26915/836.5	26990/844
LTE Band 26b	10MHz	QPSK	1	0	22.00	21.23	21.15	21.39
			1	24	22.00	21.22	20.95	21.35
			1	49	22.00	21.04	21.17	21.26
			25	0	20.50	20.15	20.03	20.11
			25	12	20.50	20.37	20.04	20.01
			25	24	20.50	20.15	20.12	19.94
			50	0	20.50	20.33	20.04	20.10
		16QAM	1	0	21.50	21.18	20.05	20.08
			1	24	21.50	21.14	19.97	19.99
			1	49	21.50	21.00	20.15	20.59
			25	0	20.00	18.98	19.18	19.11

			25	12	20.00	19.07	19.20	19.62
			25	24	20.00	18.92	19.65	19.65
			50	0	20.00	19.19	19.15	19.57
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		26865/831.5	26915/836.5	26965/841.5
LTE Band 26b	15MHz	QPSK	1	0	22.00	21.22	21.26	21.02
			1	37	22.00	21.15	20.94	20.97
			1	74	22.00	21.67	21.11	20.84
			36	0	20.50	20.20	19.91	20.19
			36	18	20.50	20.13	20.06	20.10
			36	37	20.50	20.00	19.97	20.09
			75	0	20.50	20.09	20.02	20.19
		16QAM	1	0	21.50	21.22	20.83	20.42
			1	37	21.50	21.08	20.55	20.58
			1	74	21.50	21.44	20.54	21.00
			36	0	20.00	19.30	19.88	19.57
			36	18	20.00	19.07	19.06	19.01
			36	37	20.00	19.02	19.06	19.02
			75	0	19.50	19.06	19.05	19.12

7.4. WLAN & Bluetooth Output Power

7.4.1. Output Power Results Of WLAN

Mode	Channel	Frequency (MHz)	Tune-up	Output Power (dBm)
802.11b	1	2412	14.00	13.79
	6	2437	14.00	12.02
	11	2462	14.00	12.97
802.11g	1	2412	12.50	12.04
	6	2437	12.50	11.30
	11	2462	12.50	12.14
802.11n HT20	1	2412	12.50	12.20
	6	2437	12.50	11.53
	11	2462	12.50	12.38
802.11n HT40	3	2422	11.00	10.87
	6	2437	11.00	10.03
	9	2452	11.00	9.35

NOTE: Power measurement results of WLAN 2.4G.

Mode	Channel	Frequency (MHz)	Tune-up	Output Power (dBm)
802.11a	36	5180	9.500	8.690
	40	5200	9.500	9.265
	48	5240	9.500	9.027
802.11n HT20	36	5180	9.000	8.326
	40	5200	9.000	8.684
	48	5240	9.000	8.187
802.11n HT40	38	5190	8.500	7.977
	46	5230	8.500	8.415
802.11ac VHT20	36	5180	9.000	8.437
	40	5200	9.000	8.656
	48	5240	9.000	8.301
802.11ac VHT40	38	5190	8.500	7.936
	46	5230	8.500	8.483
802.11ac VHT80	42	5210	8.000	7.602

NOTE: Power measurement results of WLAN 5.2G.

Mode	Channel	Frequency (MHz)	Tune-up	Output Power (dBm)
802.11a	149	5745	9.500	8.777
	157	5785	9.500	9.424
	165	5825	9.500	8.856
802.11n HT20	149	5745	9.000	7.992
	157	5785	9.000	8.698
	165	5825	9.000	8.616
802.11n HT40	151	5755	9.000	8.511
	159	5795	9.000	8.178
802.11ac VHT20	149	5745	9.500	9.008
	157	5785	9.500	9.162
	165	5825	9.500	7.773
802.11ac VHT40	151	5755	9.000	8.533
	159	5795	9.000	8.207
802.11ac VHT80	155	5775	9.000	8.735

NOTE: Power measurement results of WLAN 5.8G.

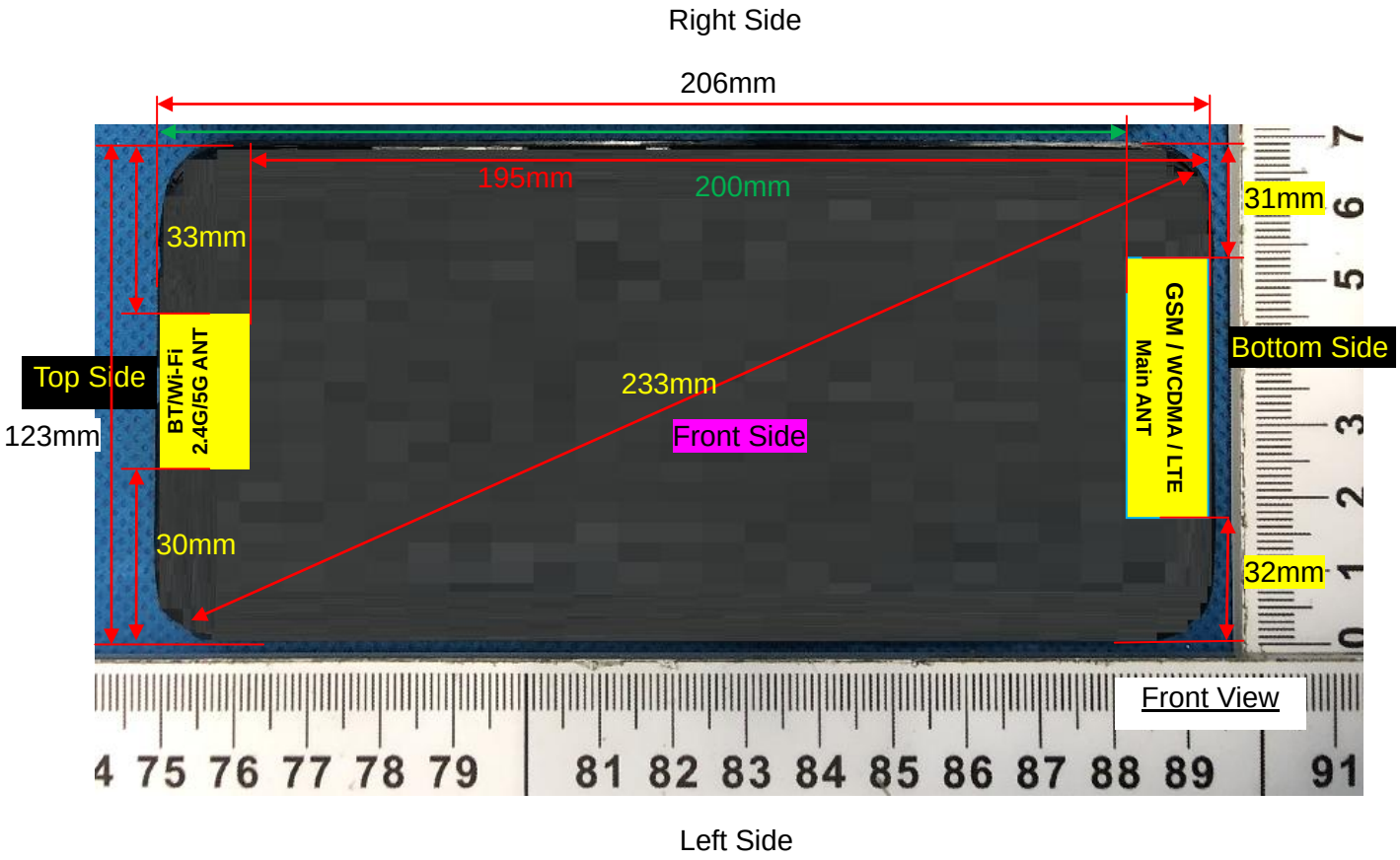
7.4.2. Output Power Results Of Bluetooth

BR+EDR	Output Power (dBm)

	Channel	Tune-up	Data Rates		
			1M	2M	3M
	0CH	2.000	1.591	1.430	0.719
	39CH	4.000	2.317	3.020	2.242
	78CH	4.000	3.053	2.930	3.170

	Channel	Tune-up	Output Power (dBm)	
			1M	2M
BLE	0CH	0.000	-0.965	-0.971
	19CH	0.000	-0.266	-0.402
	39CH	-1.000	-1.413	-1.548

8. Antenna Location



Note: Since the confidentiality request of EUT，the antenna location example diagram see as above.

Distance of the Antenna to the EUT surface/edge						
Antennas	Front Side	Back Side	Left Side	Right Side	Top Side	Bottom Side
WWAN Main	5	5	32	31	200	5
WLAN & Bluetooth	5	5	30	33	5	195

Note: When the minimum separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.

Positions for SAR tests		
Test separation distances ≤ 50 mm		
Exposure Positions	Tune-up Maximum power of WLAN 2.4G	
	14.00dBm	
Front Side	Antenna to user(mm)	5
	SAR exclusion threshold	7.9
	SAR testing required?	YES
Back Side	Antenna to user(mm)	5
	SAR exclusion threshold	7.9
	SAR testing required?	YES
Left Side	Antenna to user(mm)	30

	SAR exclusion threshold	1.3
	SAR testing required?	**NO**
Right Side	Antenna to user(mm)	33
	SAR exclusion threshold	1.2
	SAR testing required?	**NO**
Top Side	Antenna to user(mm)	5
	SAR exclusion threshold	7.9
	SAR testing required?	YES
Exposure Positions	Tune-up Maximum power of WLAN 5.2G	
	9.50dBm	
Front Side	Antenna to user(mm)	5
	SAR exclusion threshold	4.1
	SAR testing required?	YES
Back Side	Antenna to user(mm)	5
	SAR exclusion threshold	4.1
	SAR testing required?	YES
Left Side	Antenna to user(mm)	30
	SAR exclusion threshold	0.7
	SAR testing required?	**NO**
Right Side	Antenna to user(mm)	33
	SAR exclusion threshold	0.6
	SAR testing required?	**NO**
Top Side	Antenna to user(mm)	5
	SAR exclusion threshold	4.1
	SAR testing required?	YES
Exposure Positions	Tune-up Maximum power of WLAN 5.8G	
	9.50dBm	
Front Side	Antenna to user(mm)	5
	SAR exclusion threshold	4.3
	SAR testing required?	YES
Back Side	Antenna to user(mm)	5
	SAR exclusion threshold	4.3
	SAR testing required?	YES
Left Side	Antenna to user(mm)	30
	SAR exclusion threshold	0.7
	SAR testing required?	**NO**
Right Side	Antenna to user(mm)	33
	SAR exclusion threshold	0.7
	SAR testing required?	**NO**
Top Side	Antenna to user(mm)	5

	SAR exclusion threshold	4.3
	SAR testing required?	YES
Exposure Positions	Tune-up Maximum power of GSM850	
	33.00dBm	
Front Side	Antenna to user(mm)	5
	SAR exclusion threshold	367.9
	SAR testing required?	YES
Back Side	Antenna to user(mm)	5
	SAR exclusion threshold	367.9
	SAR testing required?	YES
Left Side	Antenna to user(mm)	32
	SAR exclusion threshold	57.5
	SAR testing required?	YES
Right Side	Antenna to user(mm)	31
	SAR exclusion threshold	59.3
	SAR testing required?	YES
Bottom Side	Antenna to user(mm)	5
	SAR exclusion threshold	367.9
	SAR testing required?	YES
Exposure Positions	Tune-up Maximum power of GSM1900	
	29.50dBm	
Front Side	Antenna to user(mm)	5
	SAR exclusion threshold	246.3
	SAR testing required?	YES
Back Side	Antenna to user(mm)	5
	SAR exclusion threshold	246.3
	SAR testing required?	YES
Left Side	Antenna to user(mm)	32
	SAR exclusion threshold	38.50
	SAR testing required?	YES
Right Side	Antenna to user(mm)	31
	SAR exclusion threshold	39.70
	SAR testing required?	YES
Bottom Side	Antenna to user(mm)	5
	SAR exclusion threshold	246.3
	SAR testing required?	YES
Exposure Positions	Tune-up Maximum power of WCDMA Band2	
	22.50dBm	
Front Side	Antenna to user(mm)	5
	SAR exclusion threshold	49.2

	SAR testing required?	YES
Back Side	Antenna to user(mm)	5
	SAR exclusion threshold	49.2
	SAR testing required?	YES
Left Side	Antenna to user(mm)	32
	SAR exclusion threshold	7.7
	SAR testing required?	YES
Right Side	Antenna to user(mm)	31
	SAR exclusion threshold	7.9
	SAR testing required?	YES
Bottom Side	Antenna to user(mm)	5
	SAR exclusion threshold	49.2
	SAR testing required?	YES
Exposure Positions	Tune-up Maximum power of WCDMA Band4	
	23.00dBm	
Front Side	Antenna to user(mm)	5
	SAR exclusion threshold	52.9
	SAR testing required?	YES
Back Side	Antenna to user(mm)	5
	SAR exclusion threshold	52.9
	SAR testing required?	YES
Left Side	Antenna to user(mm)	32
	SAR exclusion threshold	8.3
	SAR testing required?	YES
Right Side	Antenna to user(mm)	31
	SAR exclusion threshold	8.5
	SAR testing required?	YES
Bottom Side	Antenna to user(mm)	5
	SAR exclusion threshold	52.9
	SAR testing required?	YES
Exposure Positions	Tune-up Maximum power of WCDMA Band5	
	23.00dBm	
Front Side	Antenna to user(mm)	5
	SAR exclusion threshold	36.8
	SAR testing required?	YES
Back Side	Antenna to user(mm)	5
	SAR exclusion threshold	36.8
	SAR testing required?	YES
Left Side	Antenna to user(mm)	32
	SAR exclusion threshold	5.7

	SAR testing required?	YES
Right Side	Antenna to user(mm)	31
	SAR exclusion threshold	5.9
	SAR testing required?	YES
Bottom Side	Antenna to user(mm)	5
	SAR exclusion threshold	36.8
	SAR testing required?	YES
Exposure Positions	Tune-up Maximum power of LTE Band2	
	23.50dBm	
Front Side	Antenna to user(mm)	5
	SAR exclusion threshold	61.9
	SAR testing required?	YES
Back Side	Antenna to user(mm)	5
	SAR exclusion threshold	61.9
	SAR testing required?	YES
Left Side	Antenna to user(mm)	32
	SAR exclusion threshold	9.7
	SAR testing required?	YES
Right Side	Antenna to user(mm)	31
	SAR exclusion threshold	10.0
	SAR testing required?	YES
Bottom Side	Antenna to user(mm)	5
	SAR exclusion threshold	61.9
	SAR testing required?	YES
Exposure Positions	Tune-up Maximum power of LTE Band4	
	23.50dBm	
Front Side	Antenna to user(mm)	5
	SAR exclusion threshold	59.3
	SAR testing required?	YES
Back Side	Antenna to user(mm)	5
	SAR exclusion threshold	59.3
	SAR testing required?	YES
Left Side	Antenna to user(mm)	32
	SAR exclusion threshold	9.3
	SAR testing required?	YES
Right Side	Antenna to user(mm)	31
	SAR exclusion threshold	9.6
	SAR testing required?	YES
Bottom Side	Antenna to user(mm)	5
	SAR exclusion threshold	59.3

	SAR testing required?	YES
Exposure Positions	Tune-up Maximum power of LTE Band5	
	23.00dBm	
Front Side	Antenna to user(mm)	5
	SAR exclusion threshold	36.8
	SAR testing required?	YES
Back Side	Antenna to user(mm)	5
	SAR exclusion threshold	36.8
	SAR testing required?	YES
Left Side	Antenna to user(mm)	32
	SAR exclusion threshold	5.7
	SAR testing required?	YES
Right Side	Antenna to user(mm)	31
	SAR exclusion threshold	5.9
	SAR testing required?	YES
Bottom Side	Antenna to user(mm)	5
	SAR exclusion threshold	36.8
	SAR testing required?	YES
Exposure Positions	Tune-up Maximum power of LTE Band7	
	23.50dBm	
Front Side	Antenna to user(mm)	5
	SAR exclusion threshold	71.8
	SAR testing required?	YES
Back Side	Antenna to user(mm)	5
	SAR exclusion threshold	71.8
	SAR testing required?	YES
Left Side	Antenna to user(mm)	32
	SAR exclusion threshold	11.2
	SAR testing required?	YES
Right Side	Antenna to user(mm)	31
	SAR exclusion threshold	11.6
	SAR testing required?	YES
Bottom Side	Antenna to user(mm)	5
	SAR exclusion threshold	71.8
	SAR testing required?	YES
Exposure Positions	Tune-up Maximum power of LTE Band25	
	23.00dBm	
Front Side	Antenna to user(mm)	5
	SAR exclusion threshold	55.2
	SAR testing required?	YES

Back Side	Antenna to user(mm)	5
	SAR exclusion threshold	55.2
	SAR testing required?	YES
Left Side	Antenna to user(mm)	32
	SAR exclusion threshold	8.6
	SAR testing required?	YES
Right Side	Antenna to user(mm)	31
	SAR exclusion threshold	8.9
	SAR testing required?	YES
Bottom Side	Antenna to user(mm)	5
	SAR exclusion threshold	55.2
	SAR testing required?	YES
Exposure Positions	Tune-up Maximum power of LTE Band26A	
	21.50dBm	
Front Side	Antenna to user(mm)	5
	SAR exclusion threshold	26.0
	SAR testing required?	YES
Back Side	Antenna to user(mm)	5
	SAR exclusion threshold	26.0
	SAR testing required?	YES
Left Side	Antenna to user(mm)	32
	SAR exclusion threshold	4.1
	SAR testing required?	YES
Right Side	Antenna to user(mm)	31
	SAR exclusion threshold	4.2
	SAR testing required?	YES
Bottom Side	Antenna to user(mm)	5
	SAR exclusion threshold	26.0
	SAR testing required?	YES
Exposure Positions	Tune-up Maximum power of LTE Band26B	
	22.00dBm	
Front Side	Antenna to user(mm)	5
	SAR exclusion threshold	29.2
	SAR testing required?	YES
Back Side	Antenna to user(mm)	5
	SAR exclusion threshold	29.2
	SAR testing required?	YES
Left Side	Antenna to user(mm)	32
	SAR exclusion threshold	4.6
	SAR testing required?	YES

Right Side	Antenna to user(mm)	31
	SAR exclusion threshold	4.7
	SAR testing required?	YES
Bottom Side	Antenna to user(mm)	5
	SAR exclusion threshold	29.2
	SAR testing required?	YES

NOTE: Refer to section 4.3.1 of KDB 447498 D01.

Positions for SAR tests		
Test separation distances > 50 mm		
Exposure Positions	Tune-up Maximum power of WLAN 2.4G	
	14.00dBm	25.12mW
Bottom Side	Antenna to user(mm)	195
	SAR exclusion threshold(mW)	1546
	SAR testing required?	NO
Exposure Positions	Tune-up Maximum power of WLAN 5.2G	
	9.50dBm	8.91mW
Bottom Side	Antenna to user(mm)	195
	SAR exclusion threshold(mW)	1516
	SAR testing required?	NO
Exposure Positions	Tune-up Maximum power of WLAN 5.8G	
	9.50dBm	8.91mW
Bottom Side	Antenna to user(mm)	195
	SAR exclusion threshold(mW)	1512
	SAR testing required?	NO
Exposure Positions	Tune-up Maximum power of GSM850	
	33.00dBm	1995.26mW
Top Side	Antenna to user(mm)	200
	SAR exclusion threshold(mW)	999
	SAR testing required?	**YES**
Exposure Positions	Tune-up Maximum power of GSM1900	
	29.50dBm	891.25mW
Top Side	Antenna to user(mm)	200
	SAR exclusion threshold(mW)	1609
	SAR testing required?	NO
Exposure Positions	Tune-up Maximum power of WCDMA Band2	
	22.50dBm	177.83mW
Top Side	Antenna to user(mm)	200
	SAR exclusion threshold(mW)	1609
	SAR testing required?	NO

Exposure Positions	Tune-up Maximum power of WCDMA Band4	
	23.00dBm	199.53mW
Top Side	Antenna to user(mm)	200
	SAR exclusion threshold(mW)	1609
	SAR testing required?	NO
Exposure Positions	Tune-up Maximum power of WCDMA Band5	
	23.00dBm	199.53mW
Top Side	Antenna to user(mm)	200
	SAR exclusion threshold(mW)	999
	SAR testing required?	NO
Exposure Positions	Tune-up Maximum power of LTE Band2	
	23.50dBm	223.87mW
Top Side	Antenna to user(mm)	200
	SAR exclusion threshold(mW)	1609
	SAR testing required?	NO
Exposure Positions	Tune-up Maximum power of LTE Band4	
	23.50dBm	223.87mW
Top Side	Antenna to user(mm)	200
	SAR exclusion threshold(mW)	1609
	SAR testing required?	NO
Exposure Positions	Tune-up Maximum power of LTE Band5	
	23.00dBm	199.53mW
Top Side	Antenna to user(mm)	200
	SAR exclusion threshold(mW)	999
	SAR testing required?	NO
Exposure Positions	Tune-up Maximum power of LTE Band7	
	23.50dBm	223.87mW
Top Side	Antenna to user(mm)	200
	SAR exclusion threshold(mW)	1579
	SAR testing required?	NO
Exposure Positions	Tune-up Maximum power of LTE Band25	
	23.00dBm	199.53mW
Top Side	Antenna to user(mm)	200
	SAR exclusion threshold(mW)	1609
	SAR testing required?	NO
Exposure Positions	Tune-up Maximum power of LTE Band26A	
	21.50dBm	141.25mW
Top Side	Antenna to user(mm)	200
	SAR exclusion threshold(mW)	999
	SAR testing required?	NO

Exposure Positions	Tune-up Maximum power of LTE Band26B	
	22.00dBm	158.49mW
Top Side	Antenna to user(mm)	200
	SAR exclusion threshold(mW)	999
	SAR testing required?	NO

NOTE: Refer to section 4.3.1 of KDB 447498 D01.

9. Stand-alone SAR test exclusion

Refer to FCC KDB 447498D01, the 1-g SAR and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)]·[$\sqrt{f_{(GHZ)}}$] ≤ 3.0 for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where:

- $f_{(GHZ)}$ is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison

When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.

Mode	P_{max} (dBm)	P_{max} (mW)	Distance (mm)	f (GHz)	Calculation Result	SAR Exclusion threshold	SAR test exclusion
Bluetooth	4.00	2.51	5	2.480	0.79	3.00	Yes

NOTE: Standalone SAR test exclusion for Bluetooth

When standalone SAR test exclusion applies to an antenna that transmits simultaneously with other antennas, the standalone SAR must be estimated according to following to determine simultaneous transmission SAR test exclusion:

[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] * [$\sqrt{f_{(GHZ)}}$/x] W/kg for test separation distances ≤ 50mm, where x = 7.5 for 1-g SAR and x = 18.75 for 10-g SAR.

When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.

Mode	Position	P_{max} (dBm)	P_{max} (mW)	Distance (mm)	f (GHz)	x	Estimated SAR (W/Kg)
Bluetooth	Head	4.00	2.51	5	2.48	7.5	0.105
Bluetooth	Body	4.00	2.51	5	2.48	7.5	0.105

NOTE: Estimated SAR calculation for Bluetooth.

10. SAR Results

10.1. SAR measurement results

10.1.1. SAR measurement Result of GSM850

Test Position of Head	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date
			1g	10g					
Left Cheek	189/836.4	GPRS(GMSK 2TS)	0.195	0.152	-0.05	30.35	30.50	0.202	2022/3/04
Left Tilt 15 Degree	189/836.4	GPRS(GMSK 2TS)	0.104	0.081	1.88	30.35	30.50	0.108	2022/3/04
Right Cheek	189/836.4	GPRS(GMSK 2TS)	0.174	0.132	-3.92	30.35	30.50	0.180	2022/3/04
Right Tilt 15 Degree	189/836.4	GPRS(GMSK 2TS)	0.087	0.065	0.59	30.35	30.50	0.090	2022/3/04

NOTE: Head SAR test results of GSM850.

Test Position of Body-Worn with 0mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date
			1g	10g					
Front Side	189/836.4	GPRS(GMSK 2TS)	0.342	0.210	3.57	30.35	30.50	0.354	2022/3/04
Back Side	189/836.4	GPRS(GMSK 2TS)	0.546	0.335	-0.20	30.35	30.50	0.565	2022/3/04

NOTE: Body-Worn SAR test results of GSM850

Test Position of Hotspot with 0mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date
			1g	10g					
Front Side	189/836.4	GPRS(GMSK 2TS)	0.342	0.210	3.57	30.35	30.50	0.354	2022/3/04
Back Side	189/836.4	GPRS(GMSK 2TS)	0.546	0.335	-0.20	30.35	30.50	0.565	2022/3/04

Left Side	189/836.4	GPRS(GMSK 2TS)	0.171	0.104	-1.92	30.35	30.50	0.177	2022/3/04
Right Side	189/836.4	GPRS(GMSK 2TS)	0.168	0.103	-1.47	30.35	30.50	0.174	2022/3/04
Top Side	189/836.4	GPRS(GMSK 2TS)	0.008	0.006	3.87	30.35	30.50	0.008	2022/3/04
Bottom Side	189/836.4	GPRS(GMSK 2TS)	0.290	0.173	1.89	30.35	30.50	0.300	2022/3/04

NOTE: Body SAR test results of GSM850

10.1.2. SAR measurement Result of GSM1900

Test Position of Head	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date
			1g	10g					
Left Cheek	661/1880	GPRS(GMSK 3TS)	0.130	0.081	-2.39	25.14	26.00	0.158	2022/3/10
Left Tilt 15 Degree	661/1880	GPRS(GMSK 3TS)	0.072	0.044	3.02	25.14	26.00	0.088	2022/3/10
Right Cheek	661/1880	GPRS(GMSK 3TS)	0.116	0.072	-3.41	25.14	26.00	0.141	2022/3/10
Right Tilt 15 Degree	661/1880	GPRS(GMSK 3TS)	0.063	0.038	3.12	25.14	26.00	0.077	2022/3/10

NOTE: Head SAR test results of GSM1900

Test Position of Body-Worn with 0mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date
			1g	10g					
Front Side	661/1880	GPRS(GMSK 3TS)	0.384	0.196	-3.15	25.14	26.00	0.468	2022/3/10
Back Side	661/1880	GPRS(GMSK 3TS)	0.591	0.304	0.72	25.14	26.00	0.720	2022/3/10

NOTE: Body-Worn SAR test results of GSM1900

Test Position of	Test channel	Test Mode	SAR Value (W/kg)	Power Drift	Conducted power	Tune-up power	Scaled SAR	Date

Hotspot with 0mm	/Freq.		1g	10g	(±5%)	(dBm)	(dBm)	1g (W/Kg)	
Front Side	661/1880	GPRS(GMSK 3TS)	0.384	0.196	-3.15	25.14	26.00	0.468	2022/3/10
Back Side	661/1880	GPRS(GMSK 3TS)	0.591	0.304	0.72	25.14	26.00	0.720	2022/3/10
Left Side	661/1880	GPRS(GMSK 3TS)	0.192	0.094	0.72	25.14	26.00	0.234	2022/3/10
Right Side	661/1880	GPRS(GMSK 3TS)	0.192	0.094	2.46	25.14	26.00	0.234	2022/3/10
Bottom Side	661/1880	GPRS(GMSK 3TS)	0.305	0.151	-3.04	25.14	26.00	0.372	2022/3/10

NOTE: Body-Worn SAR test results of GSM1900

10.1.3. SAR measurement Result of WCDMA Band 2

Test Position of Head	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date
			1g	10g					
Left Cheek	9400/1880	RMC12.2K	0.301	0.177	-2.85	22.47	22.50	0.303	2022/3/10
Left Tilt 15 Degree	9400/1880	RMC12.2K	0.168	0.095	-3.63	22.47	22.50	0.169	2022/3/10
Right Cheek	9400/1880	RMC12.2K	0.285	0.166	-3.26	22.47	22.50	0.287	2022/3/10
Right Tilt 15 Degree	9400/1880	RMC12.2K	0.139	0.078	-2.06	22.47	22.50	0.140	2022/3/10

NOTE: Head SAR test results of WCDMA Band 2

Test Position of Body-Worn with 0mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date
			1g	10g					
Front Side	9400/1880	RMC12.2K	0.450	0.229	-1.89	22.47	22.50	0.453	2022/3/10
Back Side	9400/1880	RMC12.2K	0.737	0.392	-1.13	22.47	22.50	0.742	2022/3/10

NOTE: Body-Worn SAR test results of WCDMA Band 2

Test Position of	Test channel	Test Mode	SAR Value (W/kg)	Power Drift	Conducted power	Tune-up power	Scaled SAR	Date

Body with 0mm	/Freq.		1g	10g	(±5%)	(dBm)	(dBm)	1g (W/Kg)	
Front Side	9400/1880	RMC12.2K	0.450	0.229	-1.89	22.47	22.50	0.453	2022/3/10
Back Side	9400/1880	RMC12.2K	0.737	0.392	-1.13	22.47	22.50	0.742	2022/3/10
Left Side	9400/1880	RMC12.2K	0.228	0.119	-2.98	22.47	22.50	0.230	2022/3/10
Right Side	9400/1880	RMC12.2K	0.228	0.121	3.77	22.47	22.50	0.230	2022/3/10
Bottom Side	9400/1880	RMC12.2K	0.390	0.197	0.76	22.47	22.50	0.393	2022/3/10

NOTE: Body SAR test results of WCDMA Band 2

10.1.4. SAR measurement Result of WCDMA Band 4

Test Position of Head	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date
			1g	10g					
Left Cheek	1413/1732.6	RMC12.2K	0.211	0.135	-3.65	22.55	23.00	0.234	2022/2/26
Left Tilt 15 Degree	1413/1732.6	RMC12.2K	0.112	0.068	3.60	22.55	23.00	0.124	2022/2/26
Right Cheek	1413/1732.6	RMC12.2K	0.191	0.119	2.80	22.55	23.00	0.212	2022/2/26
Right Tilt 15 Degree	1413/1732.6	RMC12.2K	0.093	0.058	-1.43	22.55	23.00	0.103	2022/2/26

NOTE: Head SAR test results of WCDMA Band 4

Test Position of Body-Worn with 0mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date
			1g	10g					
Front Side	1413/1732.6	RMC12.2K	0.528	0.284	2.23	22.55	23.00	0.586	2022/2/26
Back Side	1413/1732.6	RMC12.2K	0.865	0.485	-0.74	22.55	23.00	0.959	2022/2/26
Back Side Repeated	1413/1732.6	RMC12.2K	0.860	0.481	1.25	22.55	23.00	0.954	2022/2/26
Back Side	1312/1712.4	RMC12.2K	0.751	0.422	-0.80	22.66	23.00	0.812	2022/2/26
Back Side	1513/1752.6	RMC12.2K	0.833	0.467	-0.74	22.62	23.00	0.909	2022/2/26

NOTE: Body-Worn SAR test results of WCDMA Band 4

Test Position of	Test channel	Test Mode	SAR Value (W/kg)	Power Drift	Conducted power	Tune-up power	Scaled SAR	Date

Body with 0mm	/Freq.		1g	10g	(±5%)	(dBm)	(dBm)	1g (W/Kg)	
Front Side	1413/1732.6	RMC12.2K	0.528	0.284	2.23	22.55	23.00	0.586	2022/2/26
Back Side	1413/1732.6	RMC12.2K	0.865	0.485	-0.74	22.55	23.00	0.959	2022/2/26
Back Side Repeated	1413/1732.6	RMC12.2K	0.860	0.481	1.25	22.55	23.00	0.954	2022/2/26
Left Side	1413/1732.6	RMC12.2K	0.261	0.139	2.51	22.55	23.00	0.289	2022/2/26
Right Side	1413/1732.6	RMC12.2K	0.267	0.147	-1.03	22.55	23.00	0.296	2022/2/26
Bottom Side	1413/1732.6	RMC12.2K	0.440	0.239	-0.59	22.55	23.00	0.488	2022/2/26
Back Side	1312/1712.4	RMC12.2K	0.751	0.422	-0.80	22.66	23.00	0.812	2022/2/26
Back Side	1513/1752.6	RMC12.2K	0.833	0.467	-0.74	22.62	23.00	0.909	2022/2/26

NOTE: Body SAR test results of WCDMA Band 4

10.1.5. SAR measurement Result of WCDMA Band 5

Test Position of Head	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date
			1g	10g					
Left Cheek	4182/836.4	RMC12.2K	0.210	0.162	-0.10	22.65	23.00	0.228	2022/3/04
Left Tilt 15 Degree	4182/836.4	RMC12.2K	0.116	0.089	3.82	22.65	23.00	0.126	2022/3/04
Right Cheek	4182/836.4	RMC12.2K	0.194	0.147	-3.30	22.65	23.00	0.210	2022/3/04
Right Tilt 15 Degree	4182/836.4	RMC12.2K	0.094	0.071	2.72	22.65	23.00	0.102	2022/3/04

NOTE: Head SAR test results of WCDMA Band 5

Test Position of Body-Worn with 0mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date
			1g	10g					
Front Side	4182/836.4	RMC12.2K	0.402	0.239	-2.45	22.65	23.00	0.436	2022/3/04
Back Side	4182/836.4	RMC12.2K	0.622	0.386	-0.20	22.65	23.00	0.674	2022/3/04

NOTE: Body-Worn SAR test results of WCDMA Band 5

Test Position of	Test channel	Test Mode	SAR Value (W/kg)	Power Drift	Conducted power	Tune-up power	Scaled SAR	Date

Body with 0mm	/Freq.		1g	10g	(±5%)	(dBm)	(dBm)	1g (W/Kg)	
Front Side	4182/836.4	RMC12.2K	0.402	0.239	-2.45	22.65	23.00	0.436	2022/3/04
Back Side	4182/836.4	RMC12.2K	0.622	0.386	-0.20	22.65	23.00	0.674	2022/3/04
Left Side	4182/836.4	RMC12.2K	0.195	0.117	-3.47	22.65	23.00	0.211	2022/3/04
Right Side	4182/836.4	RMC12.2K	0.195	0.116	1.07	22.65	23.00	0.211	2022/3/04
Bottom Side	4182/836.4	RMC12.2K	0.335	0.202	0.82	22.65	23.00	0.363	2022/3/04

NOTE: Body SAR test results of WCDMA Band 5

10.1.6. SAR measurement Result of LTE Band 2

Test Position of Head	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date
			1g	10g					
1RB									
Left Cheek	18900/1880	20M QPSK(1,99)	0.339	0.200	-4.57	23.25	23.50	0.359	2022/3/10
Left Tilt 15 Degree	18900/1880	20M QPSK(1,99)	0.203	0.119	2.87	23.25	23.50	0.215	2022/3/10
Right Cheek	18900/1880	20M QPSK(1,99)	0.311	0.176	-2.55	23.25	23.50	0.329	2022/3/10
Right Tilt 15 Degree	18900/1880	20M QPSK(1,99)	0.161	0.093	-3.33	23.25	23.50	0.171	2022/3/10
50%RB									
Left Cheek	18900/1880	20M QPSK(50,49)	0.189	0.119	-1.07	22.17	22.50	0.204	2022/3/10
Left Tilt 15 Degree	18900/1880	20M QPSK(50,49)	0.111	0.064	-1.43	22.17	22.50	0.120	2022/3/10
Right Cheek	18900/1880	20M QPSK(50,49)	0.167	0.099	-2.61	22.17	22.50	0.180	2022/3/10
Right Tilt 15 Degree	18900/1880	20M QPSK(50,49)	0.086	0.053	-1.11	22.17	22.50	0.093	2022/3/10

NOTE: Head SAR test results of LTE Band 2

Test Position of Body-Worn with 0mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date
			1g	10g					
1RB									
Front Side	18900/1880	20M QPSK(1,99)	0.372	0.185	0.58	23.25	23.50	0.394	2022/3/10
Back Side	18900/1880	20M QPSK(1,99)	0.574	0.295	-1.47	23.25	23.50	0.608	2022/3/10
50%RB									
Front Side	18900/1880	20M QPSK(50,49)	0.219	0.103	-3.13	22.17	22.50	0.236	2022/3/10
Back Side	18900/1880	20M QPSK(50,49)	0.299	0.174	4.00	22.17	22.50	0.323	2022/3/10

NOTE: Body-Worn SAR test results of LTE Band 2

Test Position of Body with 0mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date
			1g	10g					
1RB									
Front Side	18900/1880	20M QPSK(1,99)	0.372	0.185	0.58	23.25	23.50	0.394	2022/3/10
Back Side	18900/1880	20M QPSK(1,99)	0.574	0.295	-1.47	23.25	23.50	0.608	2022/3/10
Left Side	18900/1880	20M QPSK(1,99)	0.180	0.092	-3.49	23.25	23.50	0.191	2022/3/10
Right Side	18900/1880	20M QPSK(1,99)	0.186	0.092	1.57	23.25	23.50	0.197	2022/3/10
Bottom Side	18900/1880	20M QPSK(1,99)	0.300	0.148	-0.35	23.25	23.50	0.318	2022/3/10
50%RB									
Front Side	18900/1880	20M QPSK(50,49)	0.219	0.103	-3.13	22.17	22.50	0.236	2022/3/10
Back Side	18900/1880	20M QPSK(50,49)	0.299	0.174	4.00	22.17	22.50	0.323	2022/3/10
Left Side	18900/1880	20M QPSK(50,49)	0.099	0.054	0.98	22.17	22.50	0.107	2022/3/10
Right	18900/1880	20M	0.102	0.055	-3.08	22.17	22.50	0.110	2022/3/10

Side		QPSK(50,49)							
Bottom Side	18900/1880	20M QPSK(50,49)	0.163	0.082	1.87	22.17	22.50	0.176	2022/3/10

NOTE: Body SAR test results of LTE Band 2

10.1.7. SAR measurement Result of LTE Band 4

Test Position of Head	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date
			1g	10g					
1RB									
Left Cheek	20175/1732.5	20M QPSK(1,0)	0.219	0.140	-4.82	23.00	23.50	0.246	2022/2/26
Left Tilt 15 Degree	20175/1732.5	20M QPSK(1,0)	0.129	0.079	-2.38	23.00	23.50	0.145	2022/2/26
Right Cheek	20175/1732.5	20M QPSK(1,0)	0.189	0.115	-1.62	23.00	23.50	0.212	2022/2/26
Right Tilt 15 Degree	20175/1732.5	20M QPSK(1,0)	0.085	0.052	-1.17	23.00	23.50	0.095	2022/2/26
50%RB									
Left Cheek	20175/1732.5	20M QPSK(50,49)	0.121	0.073	0.96	22.19	22.50	0.130	2022/2/26
Left Tilt 15 Degree	20175/1732.5	20M QPSK(50,49)	0.066	0.040	-4.30	22.19	22.50	0.071	2022/2/26
Right Cheek	20175/1732.5	20M QPSK(50,49)	0.096	0.059	1.32	22.19	22.50	0.103	2022/2/26
Right Tilt 15 Degree	20175/1732.5	20M QPSK(50,49)	0.048	0.027	2.06	22.19	22.50	0.052	2022/2/26

NOTE: Head SAR test results of LTE Band 4

Test Position of Body-Worn with 0mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date
			1g	10g					

1RB									
Front Side	20175/1732.5	20M QPSK(1,0)	0.396	0.211	0.81	23.00	23.50	0.444	2022/2/26
Back Side	20175/1732.5	20M QPSK(1,0)	0.635	0.342	-0.91	23.00	23.50	0.712	2022/2/26
50%RB									
Front Side	20175/1732.5	20M QPSK(50,49)	0.230	0.120	0.17	22.19	22.50	0.247	2022/2/26
Back Side	20175/1732.5	20M QPSK(50,49)	0.374	0.180	-1.45	22.19	22.50	0.402	2022/2/26

NOTE: Body-Worn SAR test results of LTE Band 4

Test Position of Body with 0mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date
			1g	10g					
1RB									
Front Side	20175/1732.5	20M QPSK(1,0)	0.396	0.211	0.81	23.00	23.50	0.444	2022/2/26
Back Side	20175/1732.5	20M QPSK(1,0)	0.635	0.342	-0.91	23.00	23.50	0.712	2022/2/26
Left Side	20175/1732.5	20M QPSK(1,0)	0.204	0.108	-2.71	23.00	23.50	0.229	2022/2/26
Right Side	20175/1732.5	20M QPSK(1,0)	0.201	0.108	3.87	23.00	23.50	0.226	2022/2/26
Bottom Side	20175/1732.5	20M QPSK(1,0)	0.320	0.169	-0.41	23.00	23.50	0.359	2022/2/26
50%RB									
Front Side	20175/1732.5	20M QPSK(50,49)	0.230	0.120	0.17	22.19	22.50	0.247	2022/2/26
Back Side	20175/1732.5	20M QPSK(50,49)	0.374	0.180	-1.45	22.19	22.50	0.402	2022/2/26
Left Side	20175/1732.5	20M QPSK(50,49)	0.115	0.057	-3.03	22.19	22.50	0.124	2022/2/26
Right Side	20175/1732.5	20M QPSK(50,49)	0.105	0.057	0.37	22.19	22.50	0.113	2022/2/26
Bottom Side	20175/1732.5	20M QPSK(50,49)	0.163	0.085	-4.73	22.19	22.50	0.175	2022/2/26

NOTE: Body SAR test results of LTE Band 4

10.1.8. SAR measurement Result of LTE Band 5

Test Position of Head	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date
			1g	10g					
1RB									
Left Cheek	20525/836.5	10M QPSK(1,0)	0.214	0.167	0.66	22.61	23.00	0.234	2022/3/04
Left Tilt 15 Degree	20525/836.5	10M QPSK(1,0)	0.115	0.088	0.55	22.61	23.00	0.126	2022/3/04
Right Cheek	20525/836.5	10M QPSK(1,0)	0.199	0.149	1.68	22.61	23.00	0.218	2022/3/04
Right Tilt 15 Degree	20525/836.5	10M QPSK(1,0)	0.101	0.076	-3.15	22.61	23.00	0.110	2022/3/04
50%RB									
Left Cheek	20525/836.5	10M QPSK(25,0)	0.120	0.099	1.58	21.74	22.00	0.127	2022/3/04
Left Tilt 15 Degree	20525/836.5	10M QPSK(25,0)	0.061	0.052	-2.72	21.74	22.00	0.065	2022/3/04
Right Cheek	20525/836.5	10M QPSK(25,0)	0.102	0.079	-3.38	21.74	22.00	0.108	2022/3/04
Right Tilt 15 Degree	20525/836.5	10M QPSK(25,0)	0.052	0.043	-1.73	21.74	22.00	0.055	2022/3/04

NOTE: Head SAR test results of LTE Band 5

Test Position of Body-Worn with 0mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date
			1g	10g					
1RB									
Front Side	20525/836.5	10M QPSK(1,0)	0.402	0.250	2.09	22.61	23.00	0.440	2022/3/04
Back Side	20525/836.5	10M QPSK(1,0)	0.646	0.401	-1.33	22.61	23.00	0.707	2022/3/04

50%RB									
Front Side	20525/836.5	10M QPSK(25,0)	0.231	0.139	2.87	21.74	22.00	0.245	2022/3/04
Back Side	20525/836.5	10M QPSK(25,0)	0.356	0.214	0.62	21.74	22.00	0.378	2022/3/04

NOTE: Body-Worn SAR test results of LTE Band 5

Test Position of Body with 0mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date
			1g	10g					
1RB									
Front Side	20525/836.5	10M QPSK(1,0)	0.402	0.250	2.09	22.61	23.00	0.440	2022/3/04
Back Side	20525/836.5	10M QPSK(1,0)	0.646	0.401	-1.33	22.61	23.00	0.707	2022/3/04
Left Side	20525/836.5	10M QPSK(1,0)	0.207	0.122	-0.18	22.61	23.00	0.226	2022/3/04
Right Side	20525/836.5	10M QPSK(1,0)	0.201	0.125	2.69	22.61	23.00	0.220	2022/3/04
Bottom Side	20525/836.5	10M QPSK(1,0)	0.325	0.200	-0.85	22.61	23.00	0.356	2022/3/04
50%RB									
Front Side	20525/836.5	10M QPSK(25,0)	0.231	0.139	2.87	21.74	22.00	0.245	2022/3/04
Back Side	20525/836.5	10M QPSK(25,0)	0.356	0.214	0.62	21.74	22.00	0.378	2022/3/04
Left Side	20525/836.5	10M QPSK(25,0)	0.116	0.063	2.61	21.74	22.00	0.123	2022/3/04
Right Side	20525/836.5	10M QPSK(25,0)	0.104	0.074	-3.88	21.74	22.00	0.110	2022/3/04
Bottom Side	20525/836.5	10M QPSK(25,0)	0.191	0.107	0.92	21.74	22.00	0.203	2022/3/04

NOTE: Body SAR test results of LTE Band 5

10.1.9. SAR measurement Result of LTE Band 7

Test Position	Test channel	Test Mode	SAR Value (W/kg)	Power Drift	Conducted power	Tune-up power	Scaled SAR 1g	Date

of Head	/Freq.		1g	10g	(±5%)	(dBm)	(dBm)	(W/Kg)	
1RB									
Left Cheek	21100/2535	20M QPSK(1,0)	0.330	0.181	0.87	23.15	23.50	0.358	2022/3/03
Left Tilt 15 Degree	21100/2535	20M QPSK(1,0)	0.172	0.090	2.21	23.15	23.50	0.186	2022/3/03
Right Cheek	21100/2535	20M QPSK(1,0)	0.301	0.160	-1.55	23.15	23.50	0.326	2022/3/03
Right Tilt 15 Degree	21100/2535	20M QPSK(1,0)	0.143	0.077	-0.47	23.15	23.50	0.155	2022/3/03
50%RB									
Left Cheek	21100/2535	20M QPSK(50,24)	0.196	0.091	-2.02	21.91	22.50	0.225	2022/3/03
Left Tilt 15 Degree	21100/2535	20M QPSK(50,24)	0.094	0.047	4.75	21.91	22.50	0.108	2022/3/03
Right Cheek	21100/2535	20M QPSK(50,24)	0.157	0.084	-3.39	21.91	22.50	0.180	2022/3/03
Right Tilt 15 Degree	21100/2535	20M QPSK(50,24)	0.074	0.040	-2.79	21.91	22.50	0.085	2022/3/03

NOTE: Head SAR test results of LTE Band 7

Test Position of Body-Worn with 0mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date
			1g	10g					
1RB									
Front Side	21100/2535	20M QPSK(1,0)	0.576	0.234	-3.33	23.15	23.50	0.624	2022/3/03
Back Side	21100/2535	20M QPSK(1,0)	0.921	0.374	-0.35	23.15	23.50	0.998	2022/3/03
Back Side	20850/2510	20M QPSK(1,0)	0.841	0.345	-1.01	23.00	23.50	0.944	2022/3/03
Back Side	21350/2560	20M QPSK(1,0)	0.970	0.392	-0.17	23.13	23.50	1.056	2022/3/03
Back Side Repeated	21350/2560	20M QPSK(1,0)	0.966	0.387	2.01	23.13	23.50	1.052	2022/3/03

50%RB									
Front Side	21100/2535	20M QPSK(50,24)	0.340	0.132	-1.82	21.91	22.50	0.389	2022/3/03
Back Side	21100/2535	20M QPSK(50,24)	0.463	0.196	3.57	21.91	22.50	0.530	2022/3/03
100%RB									
Back Side	21100/2535	20M QPSK(100,0)	0.450	0.188	2.06	21.99	22.50	0.506	2022/3/03

NOTE: Body-Worn SAR test results of LTE Band 7

Test Position of Body with 0mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date
			1g	10g					
1RB									
Front Side	21100/2535	20M QPSK(1,0)	0.576	0.234	-3.33	23.15	23.50	0.624	2022/3/03
Back Side	21100/2535	20M QPSK(1,0)	0.921	0.374	-0.35	23.15	23.50	0.998	2022/3/03
Left Side	21100/2535	20M QPSK(1,0)	0.282	0.115	0.10	23.15	23.50	0.306	2022/3/03
Right Side	21100/2535	20M QPSK(1,0)	0.291	0.112	1.12	23.15	23.50	0.315	2022/3/03
Bottom Side	21100/2535	20M QPSK(1,0)	0.485	0.191	-0.95	23.15	23.50	0.526	2022/3/03
Back Side	20850/2510	20M QPSK(1,0)	0.841	0.345	-1.01	23.00	23.50	0.944	2022/3/03
Back Side	21350/2560	20M QPSK(1,0)	0.970	0.392	-0.17	23.13	23.50	1.056	2022/3/03
Back Side Repeated	21350/2560	20M QPSK(1,0)	0.966	0.387	2.01	23.13	23.50	1.052	2022/3/03
50%RB									
Front Side	21100/2535	20M QPSK(50,24)	0.340	0.132	-1.82	21.91	22.50	0.389	2022/3/03
Back Side	21100/2535	20M QPSK(50,24)	0.463	0.196	3.57	21.91	22.50	0.530	2022/3/03
Left Side	21100/2535	20M QPSK(50,24)	0.166	0.065	0.67	21.91	22.50	0.190	2022/3/03
Right	21100/2535	20M	0.156	0.058	3.15	21.91	22.50	0.179	2022/3/03

Side		QPSK(50,24)							
Bottom Side	21100/2535	20M QPSK(50,24)	0.279	0.108	1.28	21.91	22.50	0.320	2022/3/03
100%RB									
Back Side	21100/2535	20M QPSK(100,0)	0.450	0.188	2.06	21.99	22.50	0.506	2022/3/03

NOTE: Body SAR test results of LTE Band 7

10.1.10. SAR measurement Result of LTE Band 25

Test Position of Head	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date
			1g	10g					
1RB									
Left Cheek	26365/1882.5	20M QPSK(1,99)	0.341	0.201	-2.05	22.45	23.00	0.387	2022/3/10
Left Tilt 15 Degree	26365/1882.5	20M QPSK(1,99)	0.179	0.103	0.87	22.45	23.00	0.203	2022/3/10
Right Cheek	26365/1882.5	20M QPSK(1,99)	0.303	0.179	-3.10	22.45	23.00	0.344	2022/3/10
Right Tilt 15 Degree	26365/1882.5	20M QPSK(1,99)	0.149	0.088	0.03	22.45	23.00	0.169	2022/3/10
50%RB									
Left Cheek	26365/1882.5	20M QPSK(50,24)	0.172	0.105	-4.45	21.57	22.00	0.190	2022/3/10
Left Tilt 15 Degree	26365/1882.5	20M QPSK(50,24)	0.098	0.061	-1.23	21.57	22.00	0.108	2022/3/10
Right Cheek	26365/1882.5	20M QPSK(50,24)	0.157	0.093	0.23	21.57	22.00	0.173	2022/3/10
Right Tilt 15 Degree	26365/1882.5	20M QPSK(50,24)	0.086	0.045	-3.84	21.57	22.00	0.095	2022/3/10

NOTE: Head SAR test results of LTE Band 25

Test	Test channel	Test Mode	SAR Value	Power	Conducted	Tune-up	Scaled	Date

Position of Body-Worn with 0mm	/Freq.		(W/kg)		Drift (±5%)	power (dBm)	power (dBm)	SAR 1g (W/Kg)	
			1g	10g					
1RB									
Front Side	26365/1882.5	20M QPSK(1,99)	0.342	0.174	-0.54	22.45	23.00	0.388	2022/3/10
Back Side	26365/1882.5	20M QPSK(1,99)	0.568	0.292	-1.24	22.45	23.00	0.645	2022/3/10
50%RB									
Front Side	26365/1882.5	20M QPSK(50,24)	0.175	0.096	1.69	21.57	22.00	0.193	2022/3/10
Back Side	26365/1882.5	20M QPSK(50,24)	0.286	0.156	-1.79	21.57	22.00	0.316	2022/3/10

NOTE: Body-Worn SAR test results of LTE Band 25

Test Position of Body with 0mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date
			1g	10g					
1RB									
Front Side	26365/1882.5	20M QPSK(1,99)	0.342	0.174	-0.54	22.45	23.00	0.388	2022/3/10
Back Side	26365/1882.5	20M QPSK(1,99)	0.568	0.292	-1.24	22.45	23.00	0.645	2022/3/10
Left Side	26365/1882.5	20M QPSK(1,99)	0.171	0.084	-2.24	22.45	23.00	0.194	2022/3/10
Right Side	26365/1882.5	20M QPSK(1,99)	0.177	0.086	-0.75	22.45	23.00	0.201	2022/3/10
Bottom Side	26365/1882.5	20M QPSK(1,99)	0.300	0.147	1.59	22.45	23.00	0.341	2022/3/10
50%RB									
Front Side	26365/1882.5	20M QPSK(50,24)	0.175	0.096	1.69	21.57	22.00	0.193	2022/3/10
Back Side	26365/1882.5	20M QPSK(50,24)	0.286	0.156	-1.79	21.57	22.00	0.316	2022/3/10
Left Side	26365/1882.5	20M QPSK(50,24)	0.102	0.046	-3.82	21.57	22.00	0.113	2022/3/10
Right Side	26365/1882.5	20M QPSK(50,24)	0.100	0.045	2.54	21.57	22.00	0.110	2022/3/10
Bottom	26365/1882.5	20M	0.170	0.082	3.09	21.57	22.00	0.188	2022/3/10

Side		QPSK(50,24)							

NOTE: Body SAR test results of LTE Band 25

10.1.11. SAR measurement Result of LTE Band 26A

Test Position of Head	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date
			1g	10g					
1RB									
Left Cheek	26740/819	10M QPSK(1,49)	0.175	0.133	-1.66	21.23	21.50	0.186	2022/3/04
Left Tilt 15 Degree	26740/819	10M QPSK(1,49)	0.101	0.077	3.01	21.23	21.50	0.107	2022/3/04
Right Cheek	26740/819	10M QPSK(1,49)	0.163	0.119	-3.63	21.23	21.50	0.173	2022/3/04
Right Tilt 15 Degree	26740/819	10M QPSK(1,49)	0.079	0.057	0.18	21.23	21.50	0.084	2022/3/04
50%RB									
Left Cheek	26740/819	10M QPSK(25,0)	0.102	0.070	4.98	20.04	20.50	0.113	2022/3/04
Left Tilt 15 Degree	26740/819	10M QPSK(25,0)	0.054	0.039	-4.95	20.04	20.50	0.060	2022/3/04
Right Cheek	26740/819	10M QPSK(25,0)	0.084	0.060	-2.64	20.04	20.50	0.093	2022/3/04
Right Tilt 15 Degree	26740/819	10M QPSK(25,0)	0.044	0.032	-0.34	20.04	20.50	0.049	2022/3/04

NOTE: Head SAR test results of LTE Band26A

Test Position of Body-Worn with 0mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date
			1g	10g					
1RB									
Front Side	26740/819	10M	0.384	0.239	-2.54	21.23	21.50	0.409	2022/3/04

		QPSK(1,49)							
Back Side	26740/819	10M QPSK(1,49)	0.610	0.383	-1.63	21.23	21.50	0.649	2022/3/04
50%RB									
Front Side	26740/819	10M QPSK(25,0)	0.200	0.142	0.91	20.04	20.50	0.222	2022/3/04
Back Side	26740/819	10M QPSK(25,0)	0.351	0.202	-0.92	20.04	20.50	0.390	2022/3/04

NOTE: Body-Worn SAR test results of LTE Band 26A

Test Position of Body with 0mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date
			1g	10g					
1RB									
Front Side	26740/819	10M QPSK(1,49)	0.384	0.239	-2.54	21.23	21.50	0.409	2022/3/04
Back Side	26740/819	10M QPSK(1,49)	0.610	0.383	-1.63	21.23	21.50	0.649	2022/3/04
Left Side	26740/819	10M QPSK(1,49)	0.192	0.121	1.24	21.23	21.50	0.204	2022/3/04
Right Side	26740/819	10M QPSK(1,49)	0.195	0.121	2.33	21.23	21.50	0.208	2022/3/04
Bottom Side	26740/819	10M QPSK(1,49)	0.320	0.195	-3.31	21.23	21.50	0.341	2022/3/04
50%RB									
Front Side	26740/819	10M QPSK(25,0)	0.200	0.142	0.91	20.04	20.50	0.222	2022/3/04
Back Side	26740/819	10M QPSK(25,0)	0.351	0.202	-0.92	20.04	20.50	0.390	2022/3/04
Left Side	26740/819	10M QPSK(25,0)	0.099	0.066	0.03	20.04	20.50	0.110	2022/3/04
Right Side	26740/819	10M QPSK(25,0)	0.105	0.063	-1.48	20.04	20.50	0.117	2022/3/04
Bottom Side	26740/819	10M QPSK(25,0)	0.166	0.099	-0.54	20.04	20.50	0.185	2022/3/04

NOTE: Body SAR test results of LTE Band 26A

10.1.12. SAR measurement Result of LTE Band 26B

Test Position of Head	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date
			1g	10g					
1RB									
Left Cheek	26915/836.5	15M QPSK(1,74)	0.226	0.176	-0.07	21.11	22.00	0.277	2022/3/04
Left Tilt 15 Degree	26915/836.5	15M QPSK(1,74)	0.132	0.100	2.10	21.11	22.00	0.162	2022/3/04
Right Cheek	26915/836.5	15M QPSK(1,74)	0.202	0.154	1.31	21.11	22.00	0.248	2022/3/04
Right Tilt 15 Degree	26915/836.5	15M QPSK(1,74)	0.095	0.072	1.60	21.11	22.00	0.117	2022/3/04
50%RB									
Left Cheek	26915/836.5	15M QPSK(36,0)	0.127	0.100	-0.55	19.91	20.50	0.145	2022/3/04
Left Tilt 15 Degree	26915/836.5	15M QPSK(36,0)	0.073	0.052	-2.17	19.91	20.50	0.084	2022/3/04
Right Cheek	26915/836.5	15M QPSK(36,0)	0.102	0.090	-4.38	19.91	20.50	0.117	2022/3/04
Right Tilt 15 Degree	26915/836.5	15M QPSK(36,0)	0.056	0.036	-2.96	19.91	20.50	0.064	2022/3/04

NOTE: Head SAR test results of LTE Band26B

Test Position of Body-Worn with 0mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date
			1g	10g					
1RB									
Front Side	26915/836.5	15M QPSK(1,74)	0.402	0.250	-0.77	21.11	22.00	0.493	2022/3/04
Back Side	26915/836.5	15M QPSK(1,74)	0.649	0.403	-0.30	21.11	22.00	0.797	2022/3/04
50%RB									
Front Side	26915/836.5	15M QPSK(36,0)	0.234	0.143	4.58	19.91	20.50	0.268	2022/3/04

Back Side	26915/836.5	15M QPSK(36,0)	0.349	0.205	-2.94	19.91	20.50	0.400	2022/3/04

NOTE: Body-Worn SAR test results of LTE Band 26B

Test Position of Body with 0mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date
			1g	10g					
1RB									
Front Side	26915/836.5	15M QPSK(1,74)	0.402	0.250	-0.77	21.11	22.00	0.493	2022/3/04
Back Side	26915/836.5	15M QPSK(1,74)	0.649	0.403	-0.30	21.11	22.00	0.797	2022/3/04
Left Side	26915/836.5	15M QPSK(1,74)	0.198	0.119	-1.98	21.11	22.00	0.243	2022/3/04
Right Side	26915/836.5	15M QPSK(1,74)	0.195	0.116	3.60	21.11	22.00	0.239	2022/3/04
Bottom Side	26915/836.5	15M QPSK(1,74)	0.330	0.205	-0.86	21.11	22.00	0.405	2022/3/04
50%RB									
Front Side	26915/836.5	15M QPSK(36,0)	0.234	0.143	4.58	19.91	20.50	0.268	2022/3/04
Back Side	26915/836.5	15M QPSK(36,0)	0.349	0.205	-2.94	19.91	20.50	0.400	2022/3/04
Left Side	26915/836.5	15M QPSK(36,0)	0.106	0.069	4.22	19.91	20.50	0.121	2022/3/04
Right Side	26915/836.5	15M QPSK(36,0)	0.103	0.060	0.30	19.91	20.50	0.118	2022/3/04
Bottom Side	26915/836.5	15M QPSK(36,0)	0.172	0.117	0.08	19.91	20.50	0.197	2022/3/04

NOTE: Body SAR test results of LTE Band 26B

10.1.13. SAR measurement Result of WLAN 2.4G

Test Position of Head	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date
			1g	10g					
Left Cheek	6/2437	802.11b	0.144	0.071	3.25	12.02	14.00	0.227	2022/3/02
Left Tilt 15	6/2437	802.11b	0.073	0.034	2.27	12.02	14.00	0.115	2022/3/02

Degree									
Right Cheek	6/2437	802.11b	0.123	0.060	2.46	12.02	14.00	0.194	2022/3/02
Right Tilt 15 Degree	6/2437	802.11b	0.066	0.033	0.74	12.02	14.00	0.104	2022/3/02

NOTE: Head SAR test results of WLAN 2.4G

Test Position of Body-Worn with 0mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date
			1g	10g					
Front Side	6/2437	802.11b	0.138	0.069	3.65	12.02	14.00	0.218	2022/3/02
Back Side	6/2437	802.11b	0.194	0.101	-4.44	12.02	14.00	0.306	2022/3/02

NOTE: Body-Worn SAR test results of WLAN 2.4G

Test Position of Body with 0mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date
			1g	10g					
Front Side	6/2437	802.11b	0.138	0.069	3.65	12.02	14.00	0.218	2022/3/02
Back Side	6/2437	802.11b	0.194	0.101	-4.44	12.02	14.00	0.306	2022/3/02
Top Side	6/2437	802.11b	0.063	0.032	1.65	12.02	14.00	0.099	2022/3/02

NOTE: Body SAR test results of WLAN 2.4G

10.1.14. SAR measurement Result of WLAN 5.2G

Test Position of Head	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date
			1g	10g					
Left Cheek	40/5200	802.11a	0.234	0.095	-0.48	9.265	9.500	0.247	2022/3/08
Left Tilt 15 Degree	40/5200	802.11a	0.127	0.049	1.39	9.265	9.500	0.134	2022/3/08
Right Cheek	40/5200	802.11a	0.204	0.080	-3.74	9.265	9.500	0.215	2022/3/08
Right Tilt 15 Degree	40/5200	802.11a	0.102	0.039	-1.73	9.265	9.500	0.108	2022/3/08

NOTE: Head SAR test results of WLAN 5.2G

Test	Test	Test Mode	SAR Value	Power	Conducted	Tune-up	Scaled	Date

Position of Body-Worn with 0mm	channel /Freq.		(W/kg)		Drift (±5%)	power (dBm)	power (dBm)	SAR 1g (W/Kg)	
			1g	10g					
Front Side	40/5200	802.11a	0.180	0.064	0.35	9.265	9.500	0.190	2022/3/08
Back Side	40/5200	802.11a	0.291	0.107	1.73	9.265	9.500	0.308	2022/3/08

NOTE: Body-Worn SAR test results of WLAN 5.2G

Test Position of Body with 0mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date
			1g	10g					
Front Side	40/5200	802.11a	0.180	0.064	0.35	9.265	9.500	0.190	2022/3/08
Back Side	40/5200	802.11a	0.291	0.107	1.73	9.265	9.500	0.308	2022/3/08
Top Side	40/5200	802.11a	0.102	0.037	-1.73	9.265	9.500	0.108	2022/3/08

NOTE: Body SAR test results of WLAN 5.2G

10.1.15. SAR measurement Result of WLAN 5.8G

Test Position of Head	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date
			1g	10g					
Left Cheek	157/5785	802.11a	0.241	0.102	-0.08	9.424	9.500	0.245	2022/3/09
Left Tilt 15 Degree	157/5785	802.11a	0.122	0.051	3.60	9.424	9.500	0.124	2022/3/09
Right Cheek	157/5785	802.11a	0.208	0.085	-1.86	9.424	9.500	0.212	2022/3/09
Right Tilt 15 Degree	157/5785	802.11a	0.103	0.042	-0.51	9.424	9.500	0.105	2022/3/09

NOTE: Head SAR test results of WLAN 5.8G

Test Position of Body-Worn with 0mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date
			1g	10g					
Front Side	157/5785	802.11a	0.174	0.064	-2.80	9.424	9.500	0.177	2022/3/09
Back Side	157/5785	802.11a	0.261	0.099	-3.12	9.424	9.500	0.266	2022/3/09

NOTE: Body-Worn SAR test results of WLAN 5.8G

Test	Test	Test Mode	SAR Value	Power	Conducted	Tune-up	Scaled	Date

Position of Body with 0mm	channel /Freq.		(W/kg)		Drift (±5%)	power (dBm)	power (dBm)	SAR 1g (W/Kg)	
			1g	10g					
Front Side	157/5785	802.11a	0.174	0.064	-2.80	9.424	9.500	0.177	2022/3/09
Back Side	157/5785	802.11a	0.261	0.099	-3.12	9.424	9.500	0.266	2022/3/09
Top Side	157/5785	802.11a	0.090	0.034	1.78	9.424	9.500	0.092	2022/3/09

NOTE: Body SAR test results of WLAN 5.8G

10.2. SAR Summation Scenario

Per KDB 447498 D01, simultaneous transmission SAR is compliant if,

1) Scalar SAR summation < 1.6W/kg.

2) SPLSR = $(SAR_1 + SAR_2)^{1.5}$ / (min. separation distance, mm), and the peak separation distance is determined from the square root of $[(x_1-x_2)^2 + (y_1-y_2)^2 + (z_1-z_2)^2]$, where (x_1, y_1, z_1) and (x_2, y_2, z_2) are the coordinates of the extrapolated peak SAR locations in the zoom scan. If SPLSR ≤ 0.04, simultaneously transmission SAR measurement is not necessary.

Test Position		Scaled SAR_{MAX}		∑1-g SAR (W/Kg)	SPLSR	Remark
		WWAN	DTS			
Head	Left Cheek	0.387	0.227	0.614	N/A	N/A
	Left Tilt 15 Degree	0.215	0.115	0.330	N/A	N/A
	Right Cheek	0.344	0.194	0.538	N/A	N/A
	Right Tilt 15 Degree	0.171	0.104	0.275	N/A	N/A
Body-Worn	Front Side	0.624	0.218	0.842	N/A	N/A
	Back Side	1.056	0.306	1.362	N/A	N/A
Hotspot	Front Side	0.624	0.218	0.842	N/A	N/A
	Back Side	1.056	0.306	1.362	N/A	N/A
	Left Side	0.306	N/A	0.306	N/A	N/A
	Right Side	0.315	N/A	0.315	N/A	N/A
	Top Side	0.008	0.099	0.107	N/A	N/A
	Bottom Side	0.526	N/A	0.526	N/A	N/A

Test Position		Scaled SAR_{MAX}		∑1-g SAR (W/Kg)	SPLSR	Remark
		WWAN	NII			
Head	Left Cheek	0.387	0.247	0.634	N/A	N/A

	Left Tilt 15 Degree	0.215	0.134	0.349	N/A	N/A
	Right Cheek	0.344	0.215	0.559	N/A	N/A
	Right Tilt 15 Degree	0.171	0.108	0.279	N/A	N/A
Body-Worn	Front Side	0.624	0.190	0.814	N/A	N/A
	Back Side	1.056	0.308	1.364	N/A	N/A
Hotspot	Front Side	0.624	0.190	0.814	N/A	N/A
	Back Side	1.056	0.308	1.364	N/A	N/A
	Left Side	0.306	N/A	0.306	N/A	N/A
	Right Side	0.315	N/A	0.315	N/A	N/A
	Top Side	0.008	0.108	0.116	N/A	N/A
	Bottom Side	0.526	N/A	0.526	N/A	N/A

Test Position		Scaled SAR_{MAX}		∑1-g SAR (W/Kg)	SPLSR	Remark
		WWAN	DSS			
Head	Left Cheek	0.387	0.105	0.492	N/A	N/A
	Left Tilt 15 Degree	0.215	0.105	0.320	N/A	N/A
	Right Cheek	0.344	0.105	0.449	N/A	N/A
	Right Tilt 15 Degree	0.171	0.105	0.276	N/A	N/A
Body-Worn	Front Side	0.624	0.105	0.729	N/A	N/A
	Back Side	1.056	0.105	1.161	N/A	N/A
Hotspot	Front Side	0.624	0.105	0.729	N/A	N/A
	Back Side	1.056	0.105	1.161	N/A	N/A
	Left Side	0.306	N/A	0.306	N/A	N/A
	Right Side	0.315	N/A	0.315	N/A	N/A
	Top Side	0.008	0.105	0.113	N/A	N/A
	Bottom Side	0.526	N/A	0.526	N/A	N/A

11. Appendix A. Photo documentation

Refer to appendix Test Setup photo---SAR

12. Appendix B. System Check Plots

Table of contents
MEASUREMENT 1 System Performance Check - 835MHz
MEASUREMENT 2 System Performance Check - 1800MHz
MEASUREMENT 3 System Performance Check - 1900MHz
MEASUREMENT 4 System Performance Check - 2450MHz
MEASUREMENT 5 System Performance Check - 2600MHz
MEASUREMENT 6 System Performance Check - 5200MHz
MEASUREMENT 7 System Performance Check - 5800MHz

MEASUREMENT 1

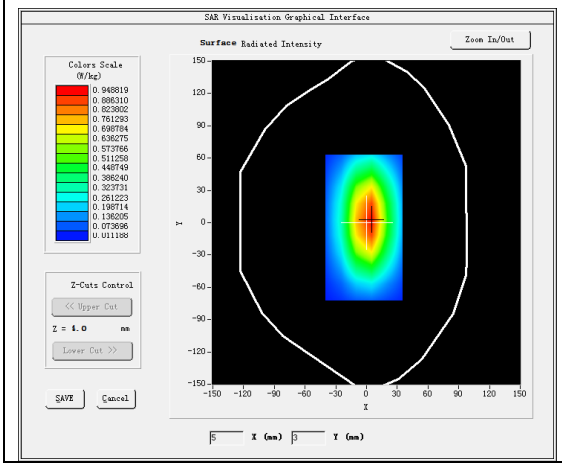
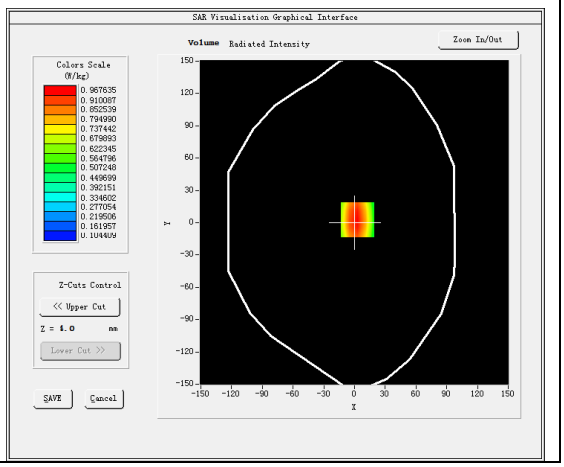
Date of measurement: 4/3/2022

A. Experimental conditions.

Area Scan	dx=15mm dy=15mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Dipole
Band	CW835
Channels	Middle
Signal	CW (Crest factor: 1.0)

B. SAR Measurement Results

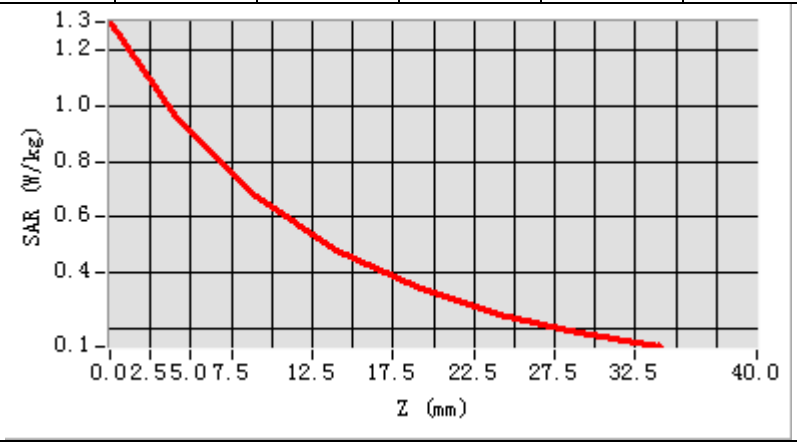
Frequency (MHz)	835.000000
Relative permittivity (real part)	42.473267
Relative permittivity (imaginary part)	19.930725
Conductivity (S/m)	0.924564
Variation (%)	-0.930000

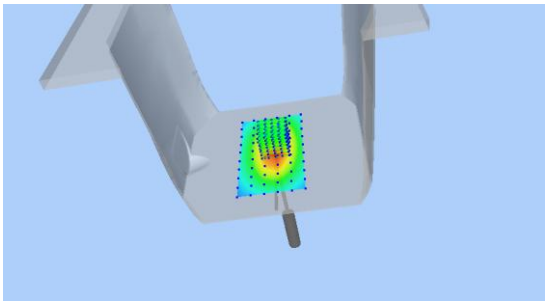
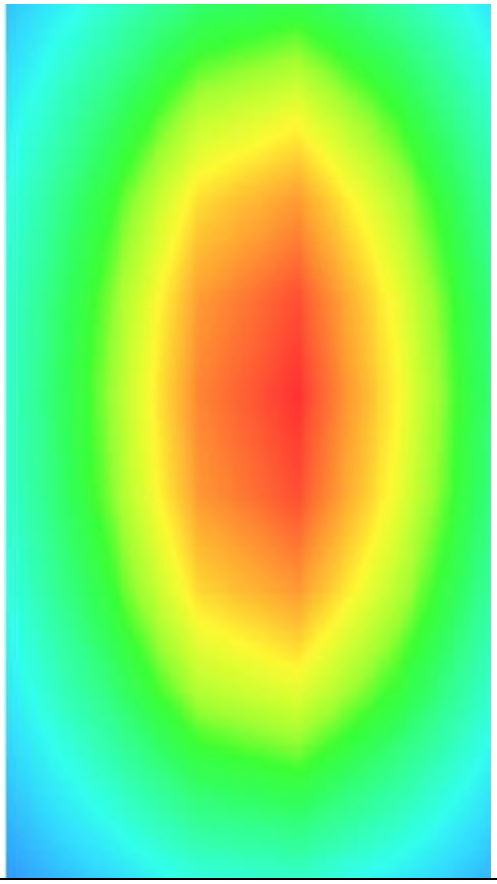
SURFACE SAR	VOLUME SAR
	

Maximum location: X=3.00, Y=3.00
SAR Peak: 1.30 W/kg

SAR 10g (W/Kg)	0.578322
SAR 1g (W/Kg)	1.069099

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	1.3095	0.9694	0.6773	0.4808	0.3458	0.2587	0.1890



3D screen shot	Hot spot position
	

MEASUREMENT 2

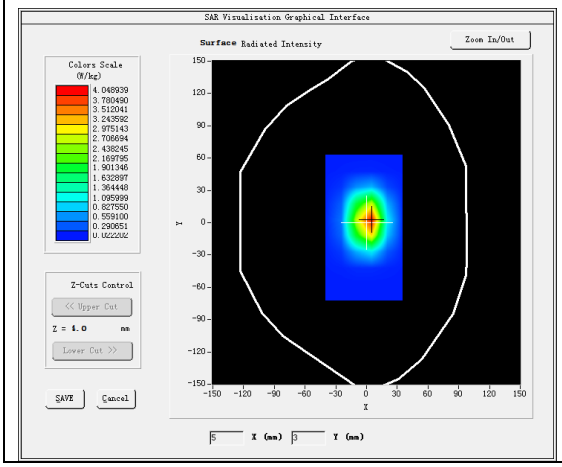
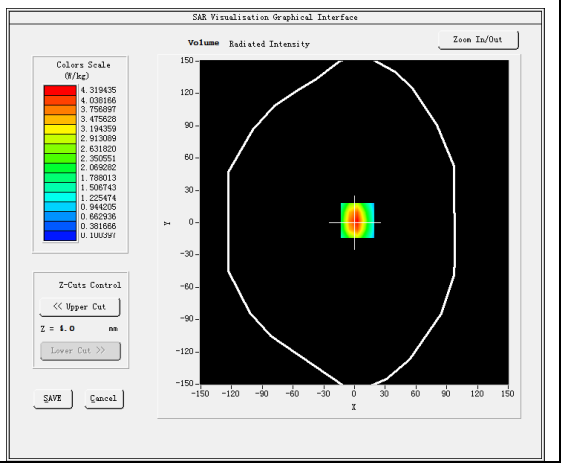
Date of measurement: 26/2/2022

A. Experimental conditions.

Area Scan	dx=15mm dy=15mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Dipole
Band	CW1800
Channels	Middle
Signal	CW (Crest factor: 1.0)

B. SAR Measurement Results

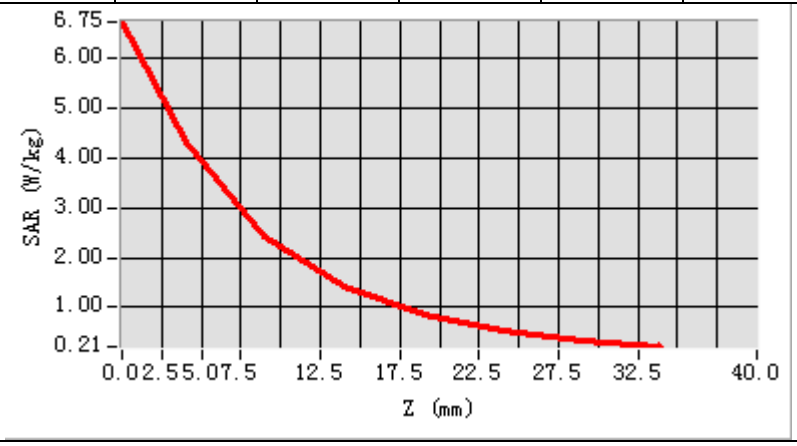
Frequency (MHz)	1800.000000
Relative permittivity (real part)	39.083004
Relative permittivity (imaginary part)	13.953003
Conductivity (S/m)	1.395300
Variation (%)	-1.900000

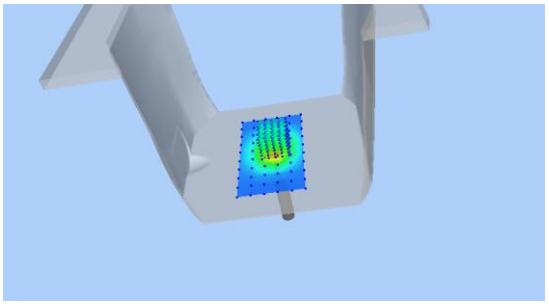
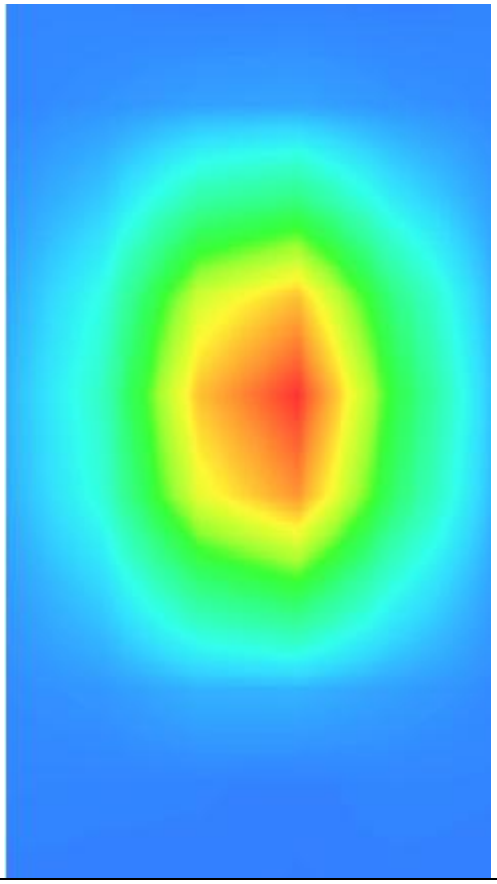
SURFACE SAR	VOLUME SAR
	

Maximum location: X=3.00, Y=2.00
SAR Peak: 6.82 W/kg

SAR 10g (W/Kg)	1.959193
SAR 1g (W/Kg)	3.494386

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	6.7453	4.3122	2.4316	1.4258	0.8502	0.5264	0.3228



3D screen shot	Hot spot position
	

MEASUREMENT 3

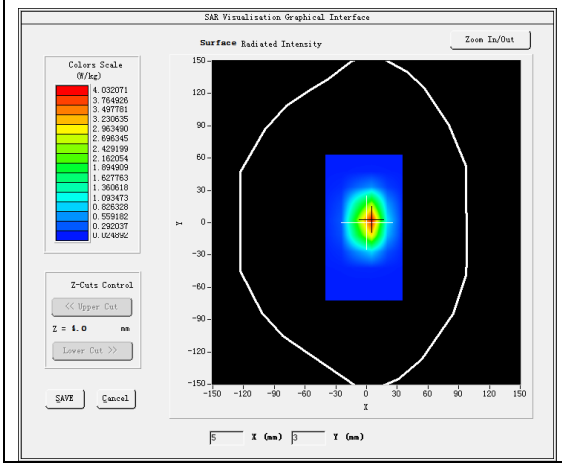
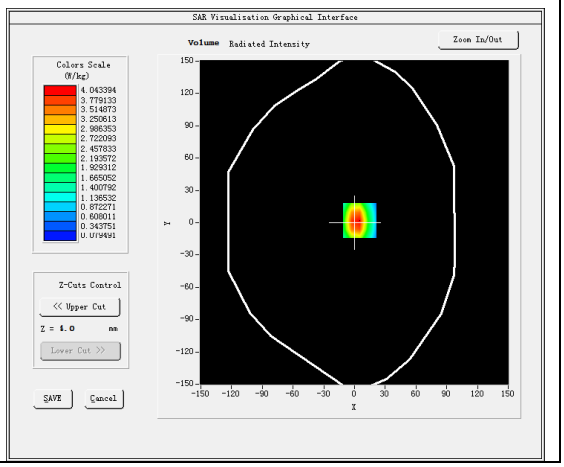
Date of measurement: 10/3/2022

A. Experimental conditions.

Area Scan	dx=15mm dy=15mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Dipole
Band	CW1900
Channels	Middle
Signal	CW (Crest factor: 1.0)

B. SAR Measurement Results

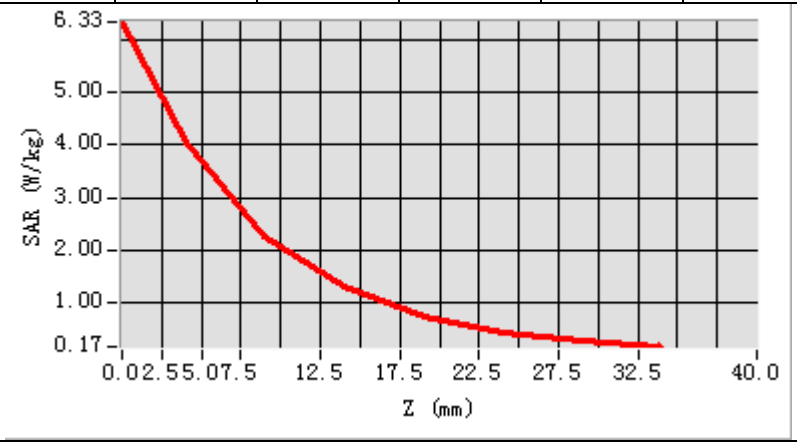
Frequency (MHz)	1900.000000
Relative permittivity (real part)	38.442235
Relative permittivity (imaginary part)	13.865546
Conductivity (S/m)	1.463585
Variation (%)	-1.150000

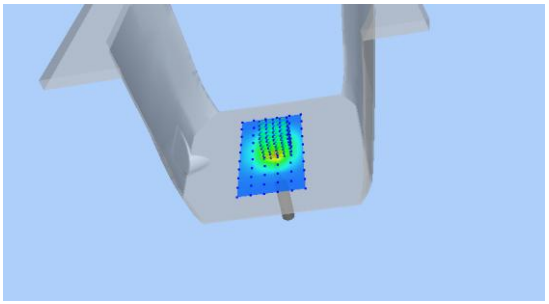
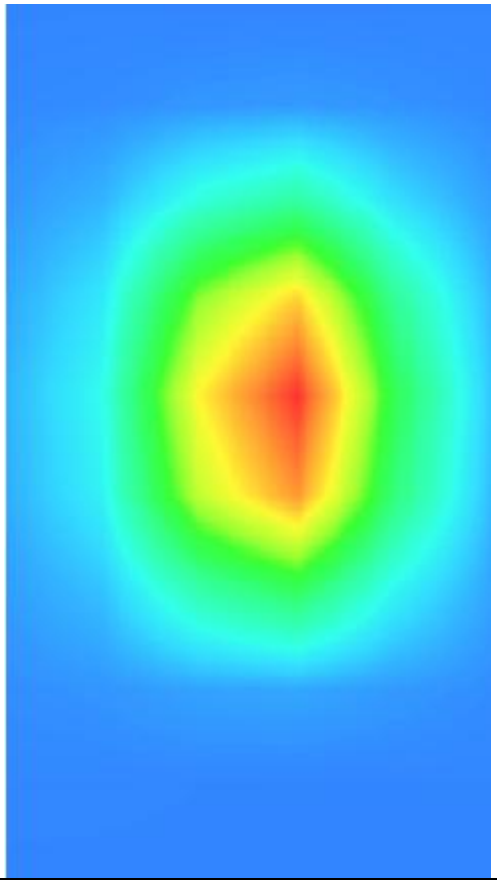
SURFACE SAR	VOLUME SAR
	

Maximum location: X=5.00, Y=2.00
SAR Peak: 6.70 W/kg

SAR 10g (W/Kg)	1.892070
SAR 1g (W/Kg)	3.864062

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	6.3256	4.0450	2.2680	1.3013	0.7644	0.4580	0.2782



3D screen shot	Hot spot position
	

MEASUREMENT 4

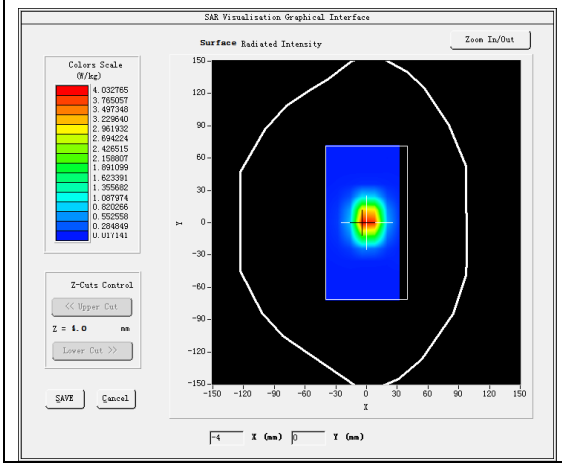
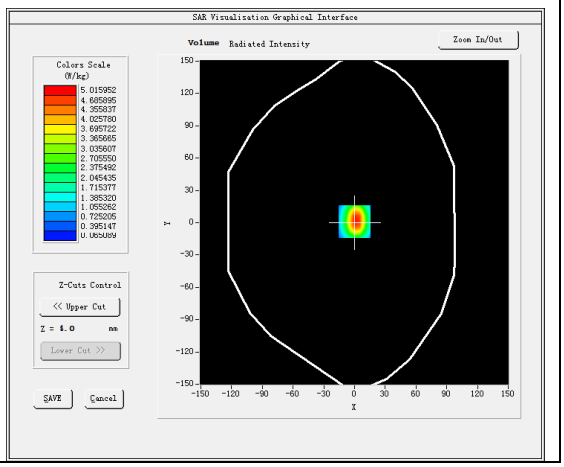
Date of measurement: 2/3/2022

A. Experimental conditions.

Area Scan	dx=12mm dy=12mm, h= 5.00 mm
ZoomScan	7x7x7,dx=5mm dy=5mm dz=5mm
Phantom	Validation plane
Device Position	Dipole
Band	CW2450
Channels	Middle
Signal	CW (Crest factor: 1.0)

B. SAR Measurement Results

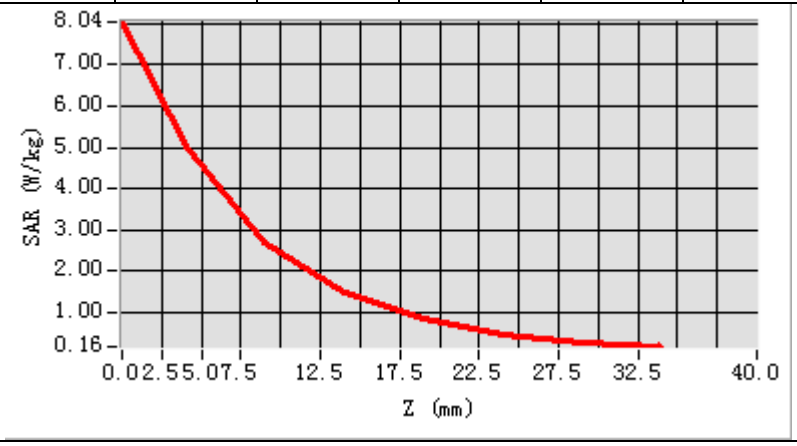
Frequency (MHz)	2450.000000
Relative permittivity (real part)	38.935840
Relative permittivity (imaginary part)	13.282516
Conductivity (S/m)	1.807898
Variation (%)	2.740000

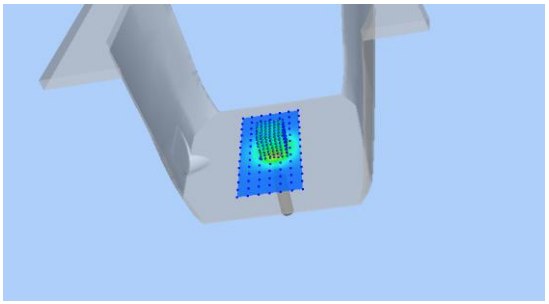
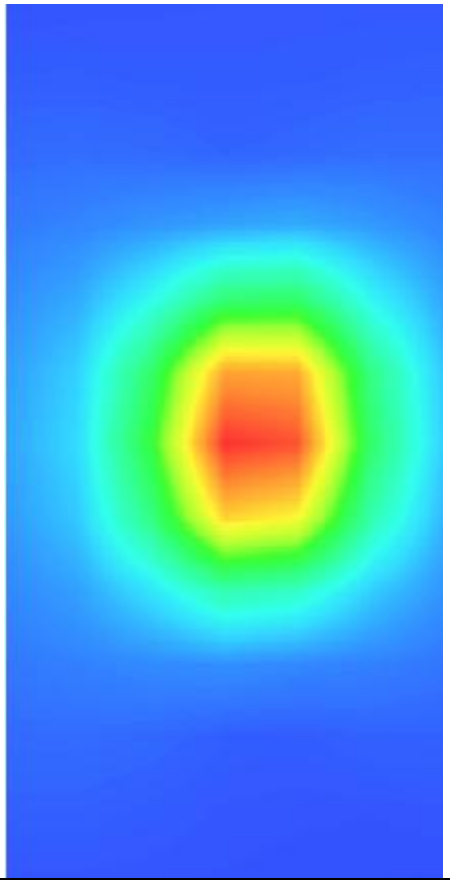
SURFACE SAR	VOLUME SAR
	

Maximum location: X=0.00, Y=1.00
SAR Peak: 8.14 W/kg

SAR 10g (W/Kg)	2.224150
SAR 1g (W/Kg)	5.097345

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	8.0322	5.0156	2.6961	1.4893	0.8330	0.4684	0.2649



3D screen shot	Hot spot position
	

MEASUREMENT 5

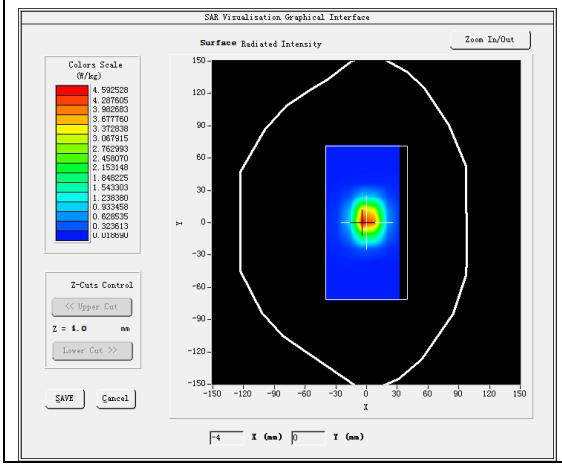
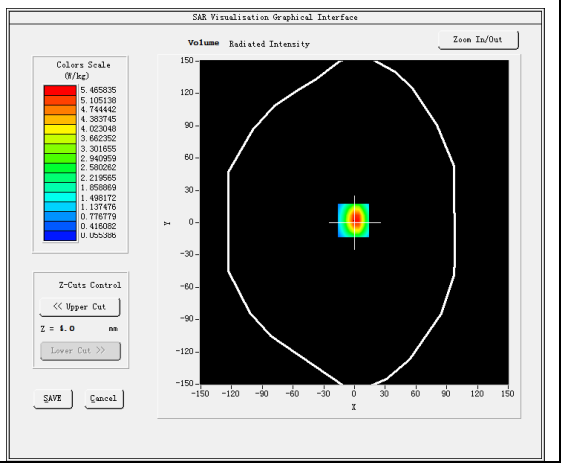
Date of measurement: 3/3/2022

A. Experimental conditions.

Area Scan	dx=12mm dy=12mm, h= 5.00 mm
ZoomScan	7x7x7,dx=5mm dy=5mm dz=5mm
Phantom	Validation plane
Device Position	Dipole
Band	CW2600
Channels	Middle
Signal	CW (Crest factor: 1.0)

B. SAR Measurement Results

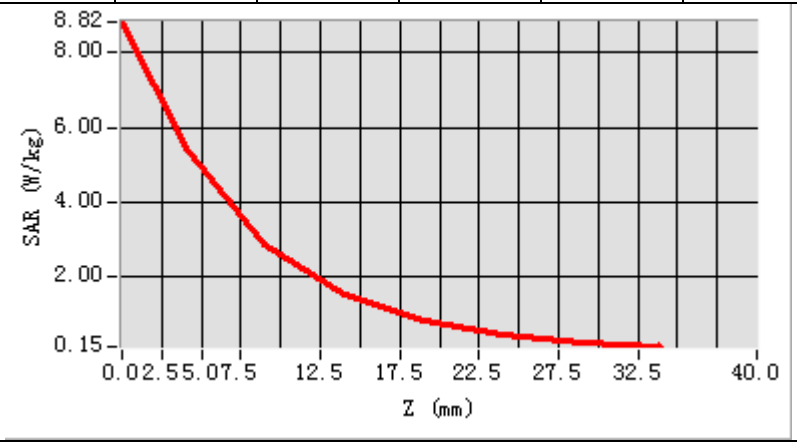
Frequency (MHz)	2600.000000
Relative permittivity (real part)	38.747205
Relative permittivity (imaginary part)	14.041450
Conductivity (S/m)	2.028209
Variation (%)	-0.990000

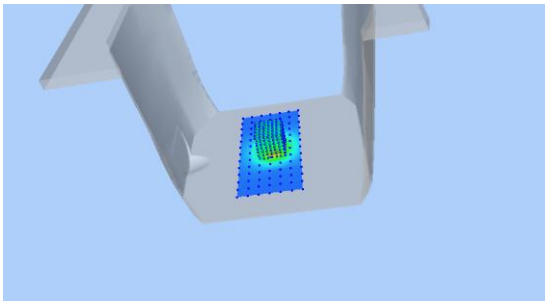
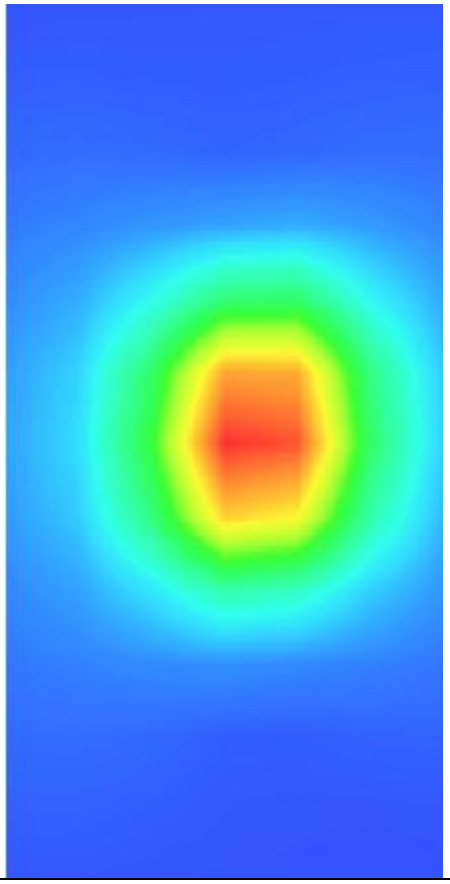
SURFACE SAR	VOLUME SAR
	

Maximum location: X=-1.00, Y=2.00
SAR Peak: 9.07 W/kg

SAR 10g (W/Kg)	2.607256
SAR 1g (W/Kg)	5.068161

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	8.8117	5.4622	2.8934	1.5671	0.8548	0.4757	0.2620



3D screen shot	Hot spot position
	

MEASUREMENT 6

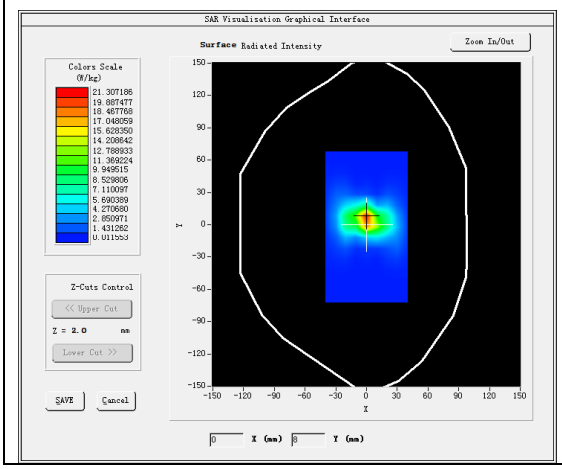
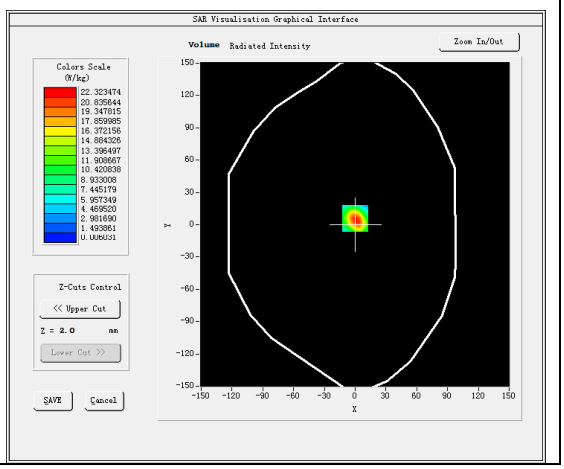
Date of measurement: 8/3/2022

A. Experimental conditions.

Area Scan	dx=10mm dy=10mm, h= 2.00 mm
ZoomScan	7x7x12,dx=4mm dy=4mm dz=2mm
Phantom	Validation plane
Device Position	Dipole
Band	CW5200
Channels	Middle
Signal	CW (Crest factor: 1.0)

B. SAR Measurement Results

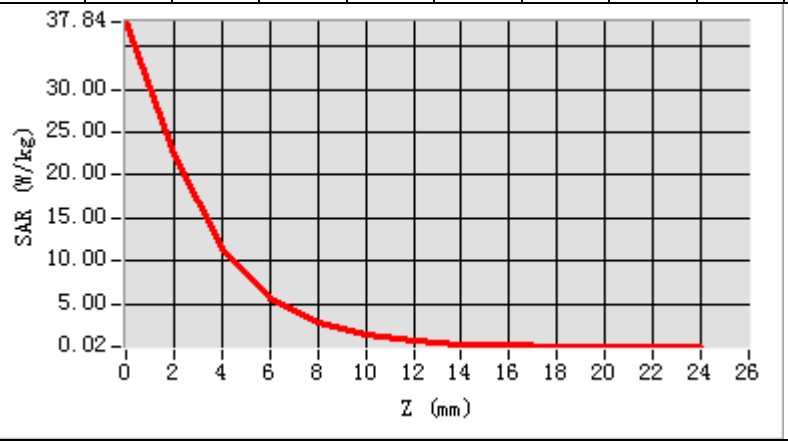
Frequency (MHz)	5200.000000
Relative permittivity (real part)	36.742442
Relative permittivity (imaginary part)	16.499774
Conductivity (S/m)	4.766601
Variation (%)	3.250000

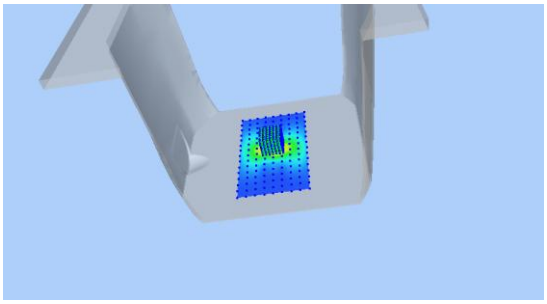
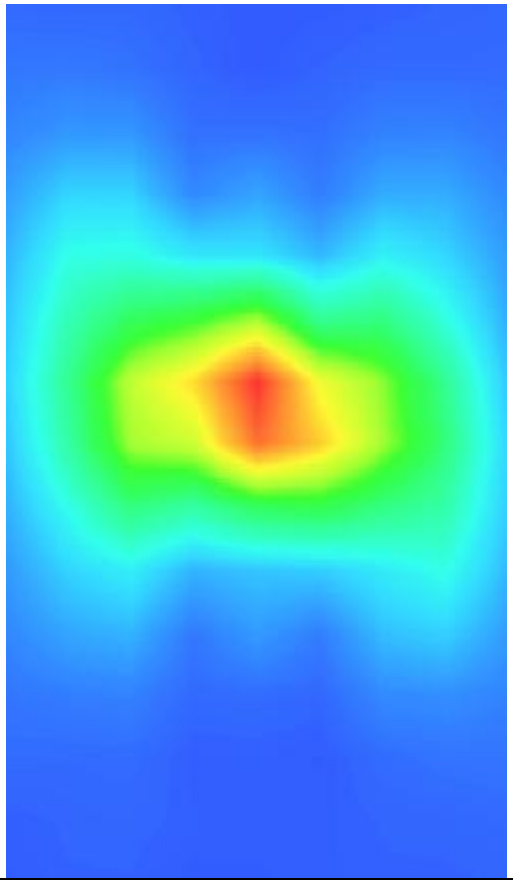
SURFACE SAR	**VOLUME SAR**
	

Maximum location: X=0.00, Y=6.00
SAR Peak: 40.06 W/kg

SAR 10g (W/Kg)	5.373311
SAR 1g (W/Kg)	17.006103

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00	20.00	22.00
SAR (W/Kg)	37.838	22.314	11.307	5.6682	2.8245	1.4006	0.7190	0.3670	0.1899	0.1066	0.0511	0.0396



3D screen shot	Hot spot position
	

MEASUREMENT 7

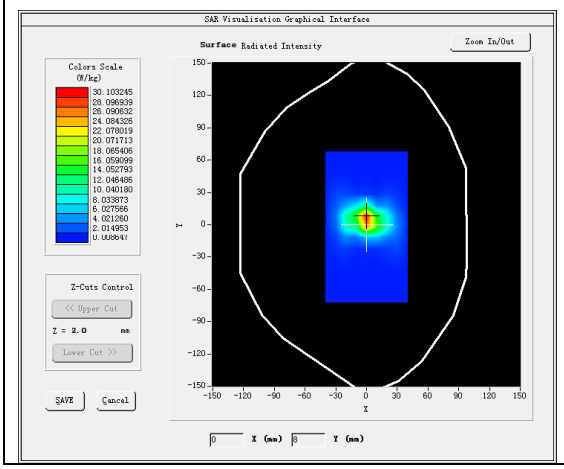
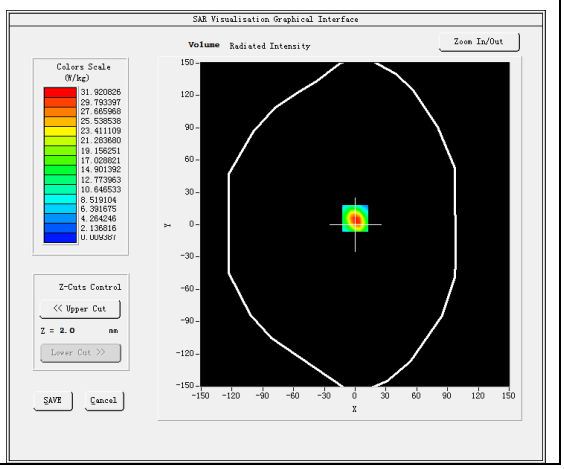
Date of measurement: 9/3/2022

A. Experimental conditions.

Area Scan	dx=10mm dy=10mm, h= 2.00 mm
ZoomScan	7x7x12,dx=4mm dy=4mm dz=2mm
Phantom	Validation plane
Device Position	Dipole
Band	CW5800
Channels	Middle
Signal	CW (Crest factor: 1.0)

B. SAR Measurement Results

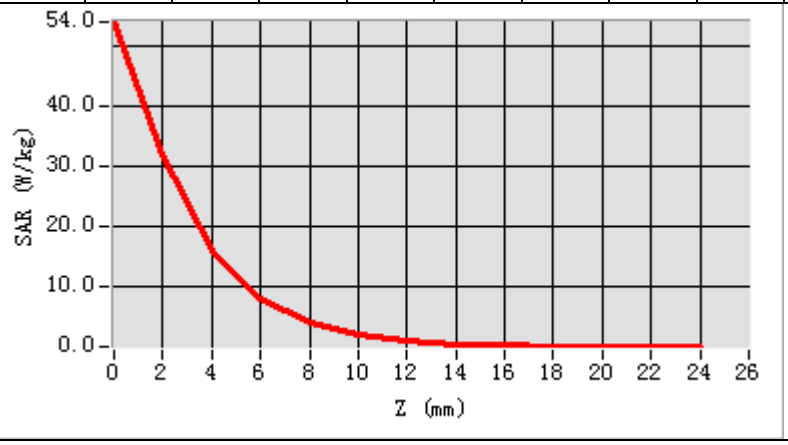
Frequency (MHz)	5800.000000
Relative permittivity (real part)	35.653642
Relative permittivity (imaginary part)	16.884034
Conductivity (S/m)	5.440411
Variation (%)	3.210000

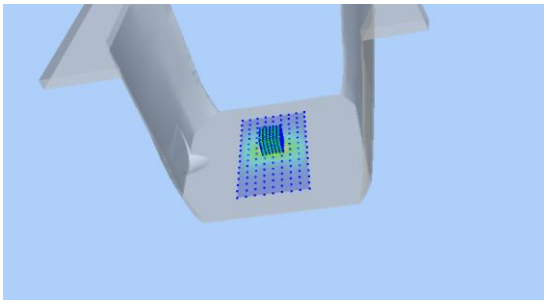
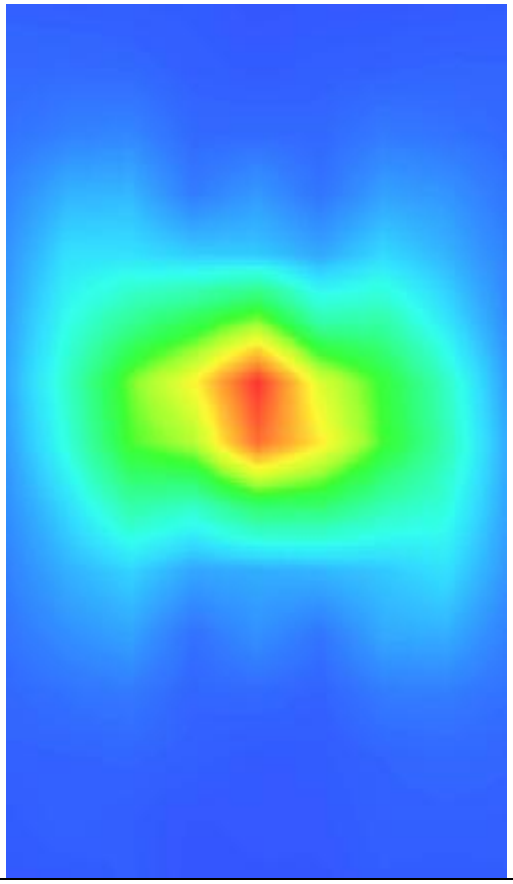
SURFACE SAR	VOLUME SAR
	

Maximum location: X=0.00, Y=6.00
SAR Peak: 57.37 W/kg

SAR 10g (W/Kg)	6.250184
SAR 1g (W/Kg)	19.202233

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00	20.00	22.00
SAR (W/Kg)	54.027	31.980	16.188	8.1721	4.0860	2.0564	1.0391	0.5126	0.2723	0.1500	0.0797	0.0444



3D screen shot	Hot spot position
	

13. Appendix C. Plots of High SAR Measurement

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MEASUREMENT 1

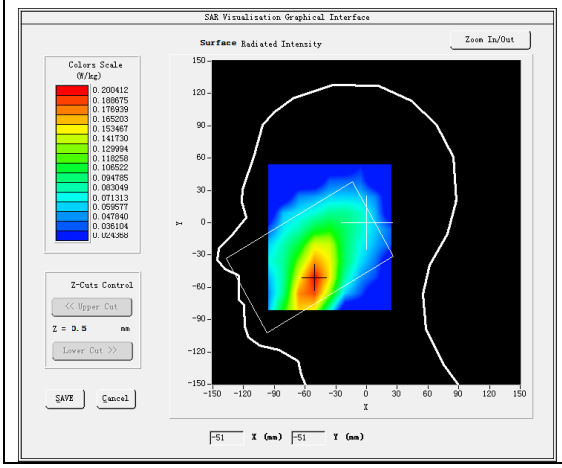
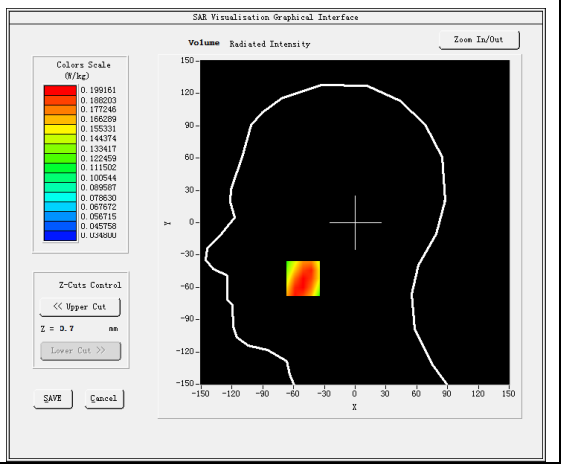
Date of measurement: 4/3/2022

A. Experimental conditions.

Area Scan	dx=15mm dy=15mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Left head
Device Position	Cheek
Band	GSM850
Channels	Middle
Signal	TDMA (Crest factor: 4.0)

B. SAR Measurement Results

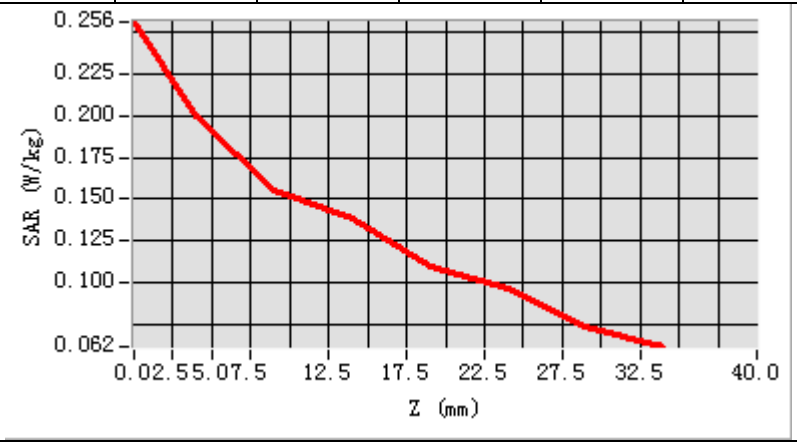
Frequency (MHz)	836.400000
Relative permittivity (real part)	42.388927
Relative permittivity (imaginary part)	19.956566
Conductivity (S/m)	0.927315
Variation (%)	-0.050000

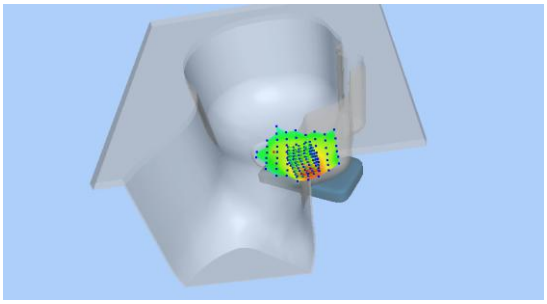
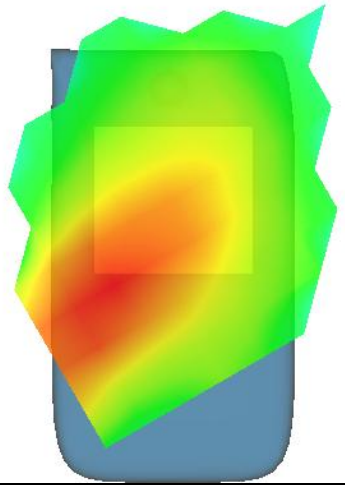
SURFACE SAR	VOLUME SAR
	

Maximum location: X=-51.00, Y=-52.00
SAR Peak: 0.24 W/kg

SAR 10g (W/Kg)	0.151510
SAR 1g (W/Kg)	0.194924

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.2561	0.1992	0.1553	0.1381	0.1103	0.0963	0.0743



3D screen shot	Hot spot position
	

MEASUREMENT 2

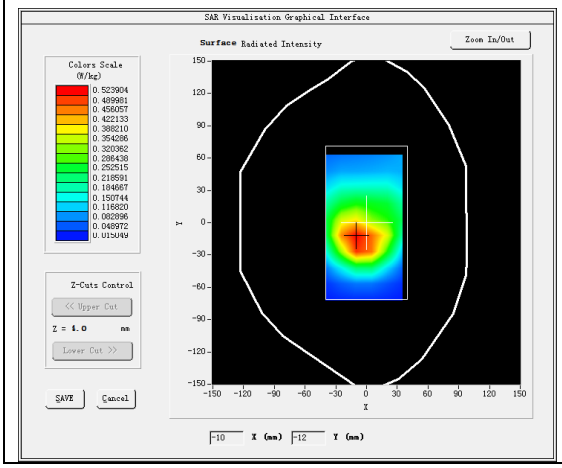
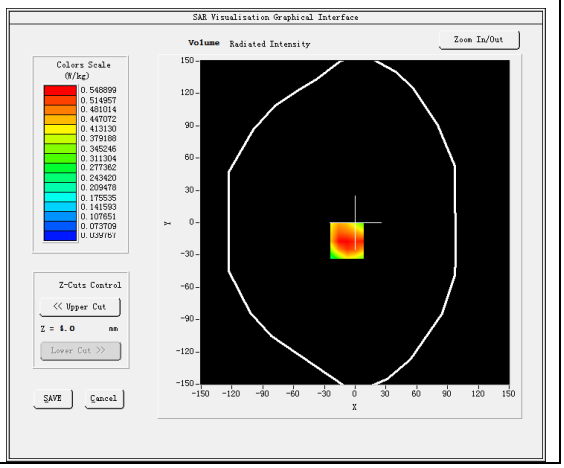
Date of measurement: 4/3/2022

A. Experimental conditions.

Area Scan	dx=15mm dy=15mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Body
Band	GSM850
Channels	Middle
Signal	TDMA (Crest factor: 4.0)

B. SAR Measurement Results

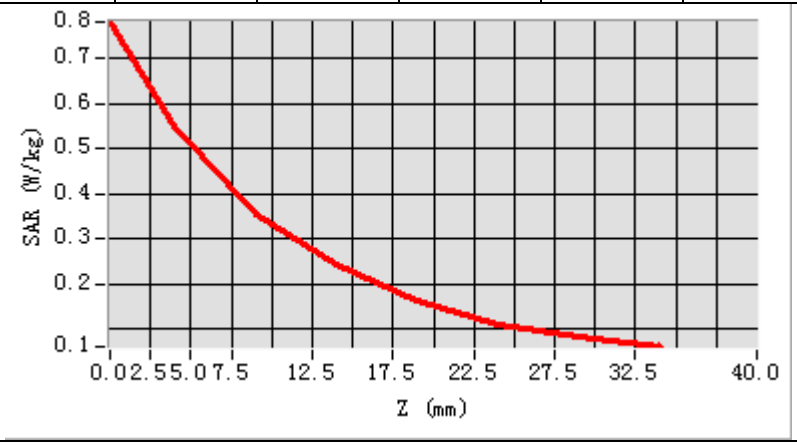
Frequency (MHz)	836.400000
Relative permittivity (real part)	42.388927
Relative permittivity (imaginary part)	19.956566
Conductivity (S/m)	0.927315
Variation (%)	-0.200000

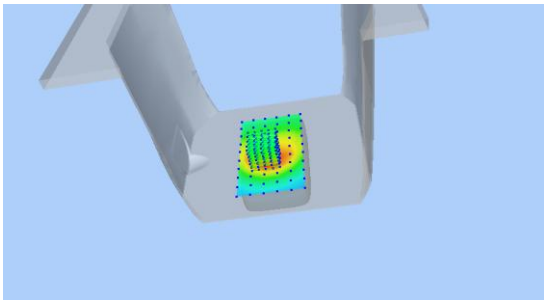
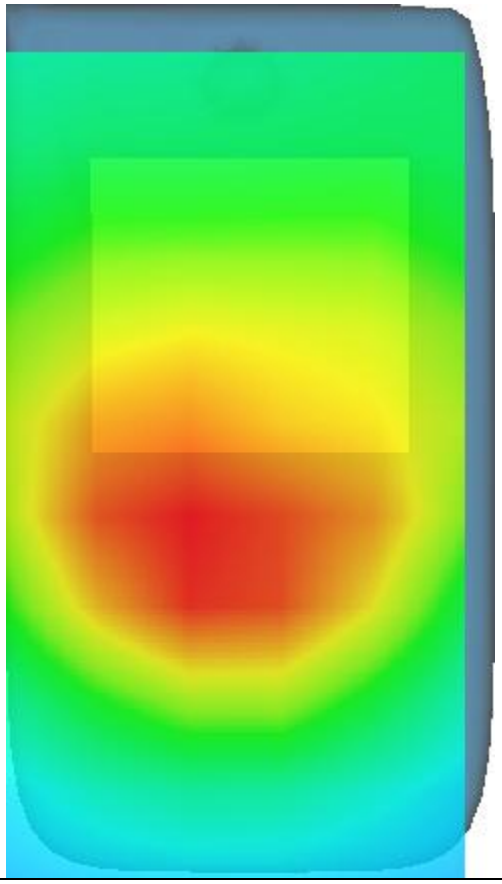
SURFACE SAR	VOLUME SAR
	

Maximum location: X=-8.00, Y=-17.00
SAR Peak: 0.81 W/kg

SAR 10g (W/Kg)	0.335241
SAR 1g (W/Kg)	0.546235

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.7811	0.5489	0.3533	0.2436	0.1625	0.1117	0.0815



3D screen shot	Hot spot position
	

MEASUREMENT 3

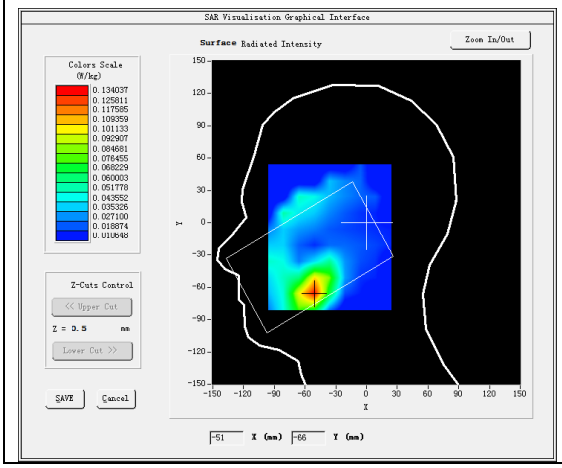
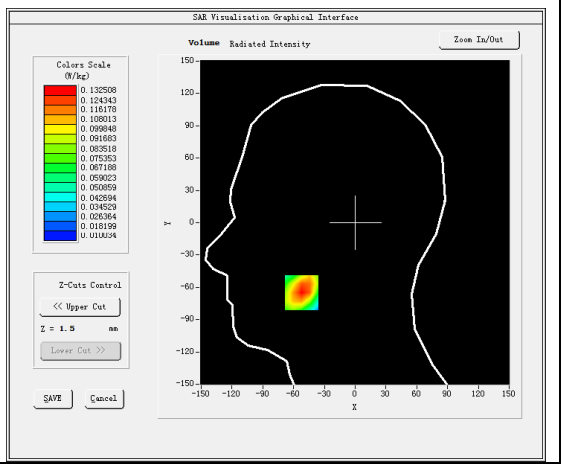
Date of measurement: 10/3/2022

A. Experimental conditions.

Area Scan	dx=15mm dy=15mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Left head
Device Position	Cheek
Band	GSM1900
Channels	Middle
Signal	TDMA (Crest factor: 2.7)

B. SAR Measurement Results

Frequency (MHz)	1880.000000
Relative permittivity (real part)	38.528633
Relative permittivity (imaginary part)	13.883346
Conductivity (S/m)	1.450038
Variation (%)	-2.390000

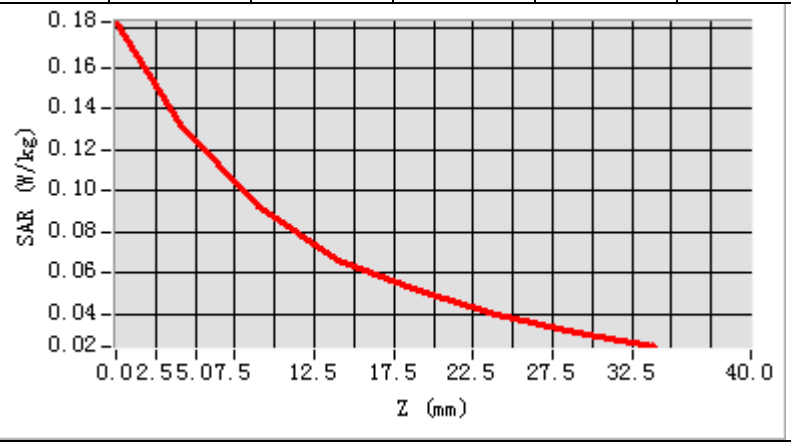
SURFACE SAR	VOLUME SAR
	

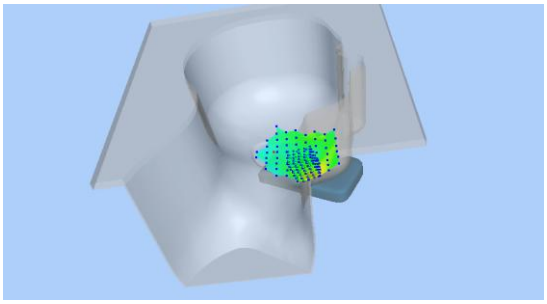
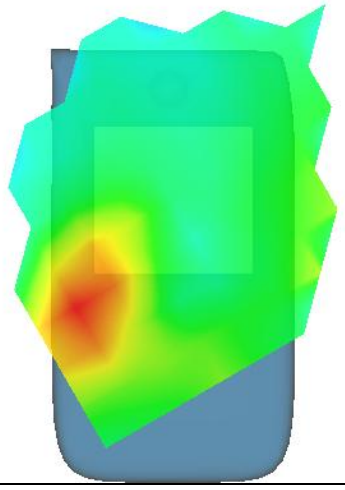
Maximum location: X=-52.00, Y=-65.00

SAR Peak: 0.19 W/kg

SAR 10g (W/Kg)	0.080650
SAR 1g (W/Kg)	0.130310

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.1825	0.1325	0.0919	0.0664	0.0510	0.0394	0.0303



3D screen shot	Hot spot position
	

MEASUREMENT 4

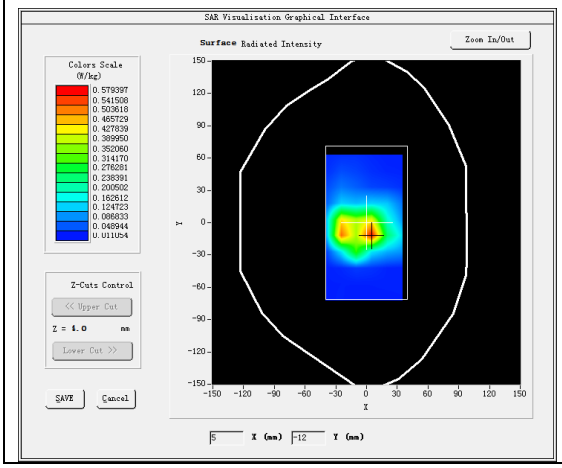
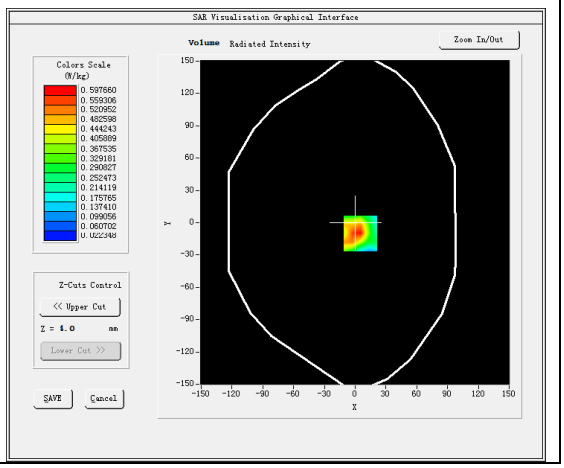
Date of measurement: 10/3/2022

A. Experimental conditions.

Area Scan	dx=15mm dy=15mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Body
Band	GSM1900
Channels	Middle
Signal	TDMA (Crest factor: 2.7)

B. SAR Measurement Results

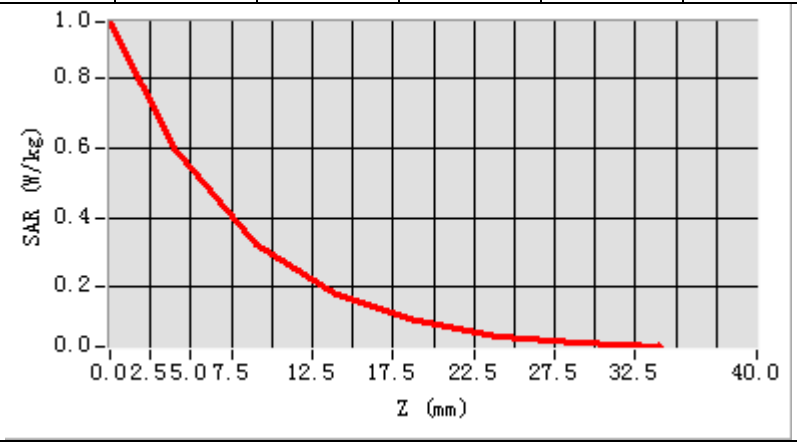
Frequency (MHz)	1880.000000
Relative permittivity (real part)	38.528633
Relative permittivity (imaginary part)	13.883346
Conductivity (S/m)	1.450038
Variation (%)	0.720000

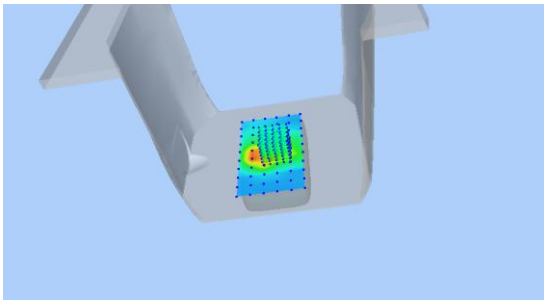
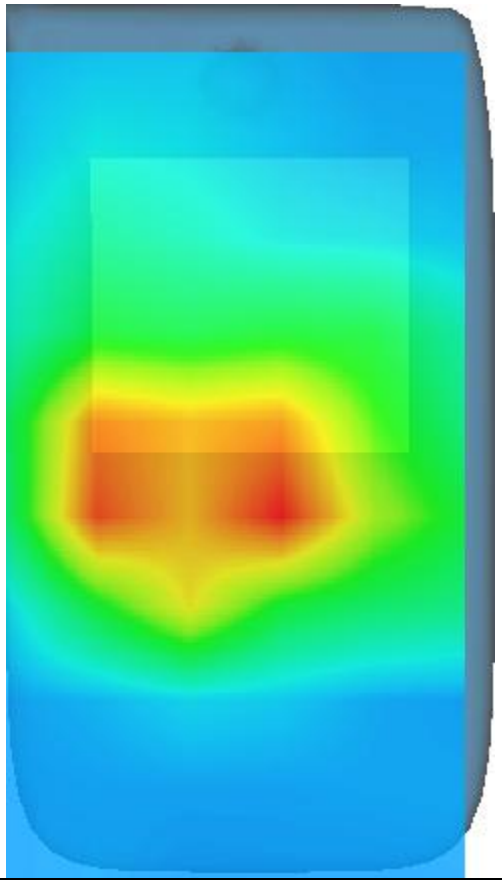
SURFACE SAR	VOLUME SAR
	

Maximum location: X=5.00, Y=-10.00
SAR Peak: 1.02 W/kg

SAR 10g (W/Kg)	0.303521
SAR 1g (W/Kg)	0.591489

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.9598	0.5977	0.3212	0.1797	0.1042	0.0610	0.0412



3D screen shot	Hot spot position
	

MEASUREMENT 5

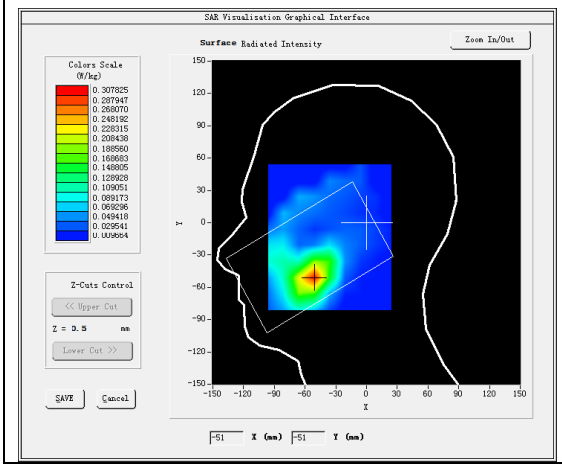
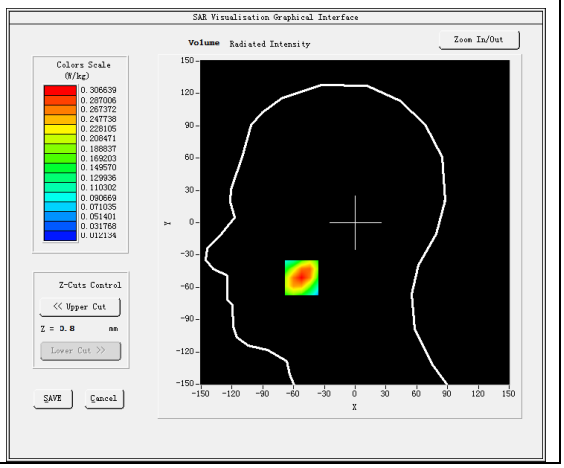
Date of measurement: 10/3/2022

A. Experimental conditions.

Area Scan	dx=15mm dy=15mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Left head
Device Position	Cheek
Band	Band2_WCDMA1900
Channels	Middle
Signal	WCDMA (Crest factor: 1.0)

B. SAR Measurement Results

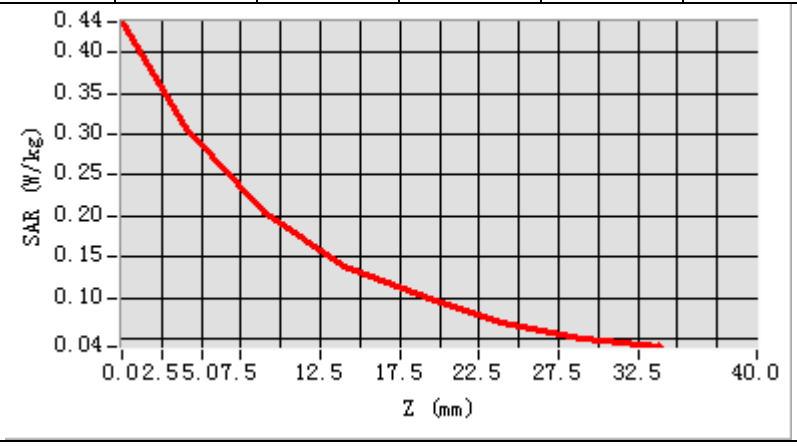
Frequency (MHz)	1880.000000
Relative permittivity (real part)	38.528633
Relative permittivity (imaginary part)	13.883346
Conductivity (S/m)	1.450038
Variation (%)	-2.850000

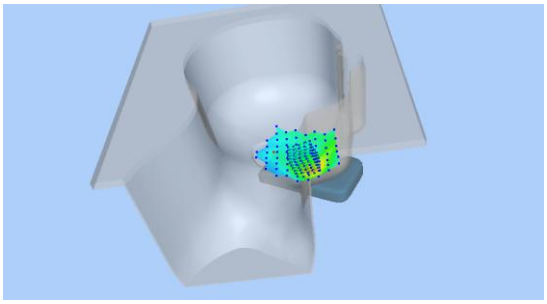
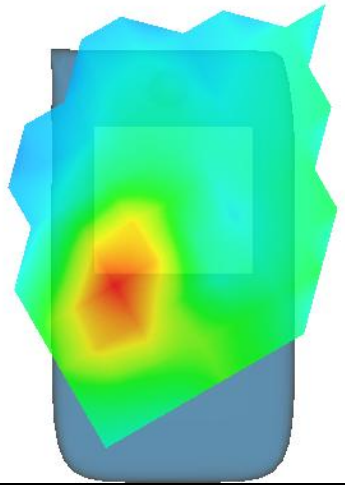
SURFACE SAR	VOLUME SAR
	

Maximum location: X=-52.00, Y=-51.00
SAR Peak: 0.44 W/kg

SAR 10g (W/Kg)	0.176930
SAR 1g (W/Kg)	0.300502

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.4376	0.3066	0.2041	0.1391	0.1022	0.0695	0.0488



3D screen shot	Hot spot position
	

MEASUREMENT 6

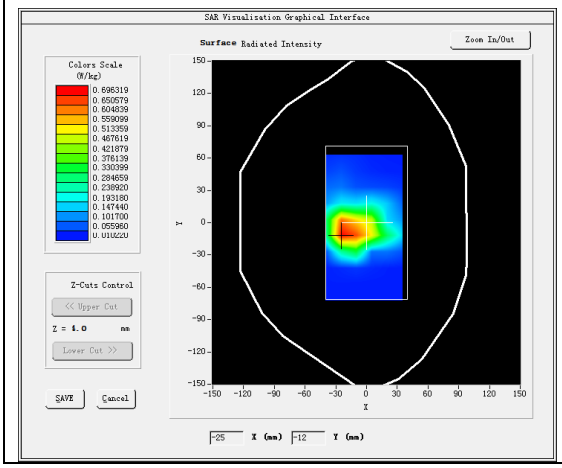
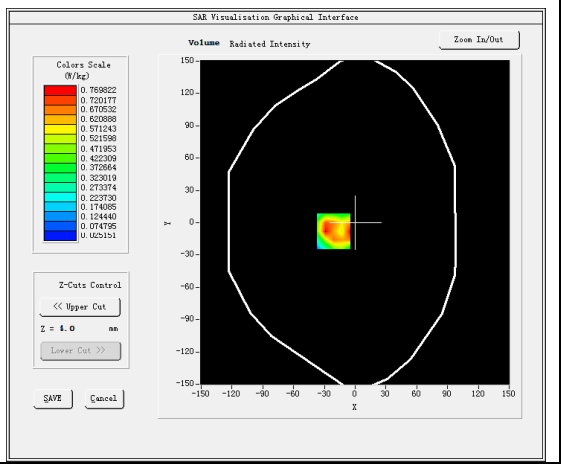
Date of measurement: 10/3/2022

A. Experimental conditions.

Area Scan	dx=15mm dy=15mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Body
Band	Band2_WCDMA1900
Channels	Middle
Signal	WCDMA (Crest factor: 1.0)

B. SAR Measurement Results

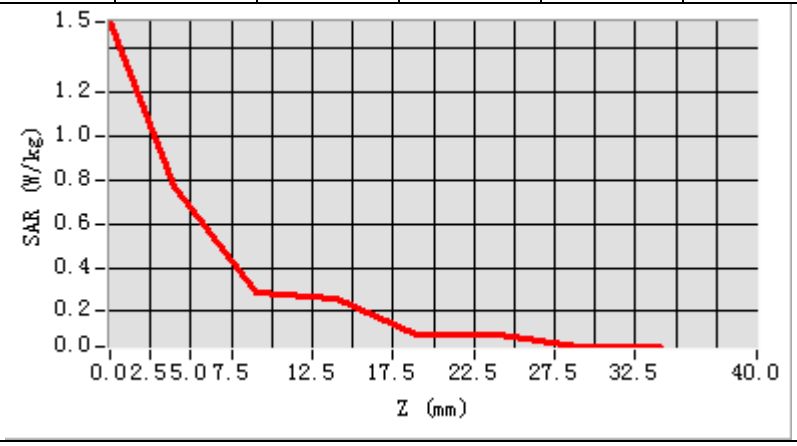
Frequency (MHz)	1880.000000
Relative permittivity (real part)	38.528633
Relative permittivity (imaginary part)	13.883346
Conductivity (S/m)	1.450038
Variation (%)	-1.130000

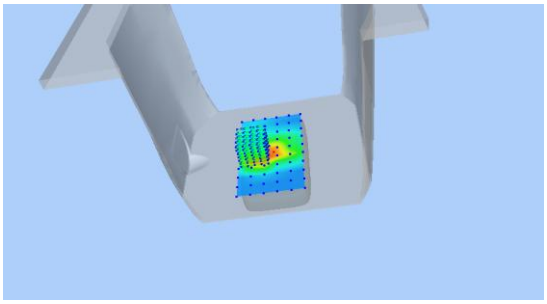
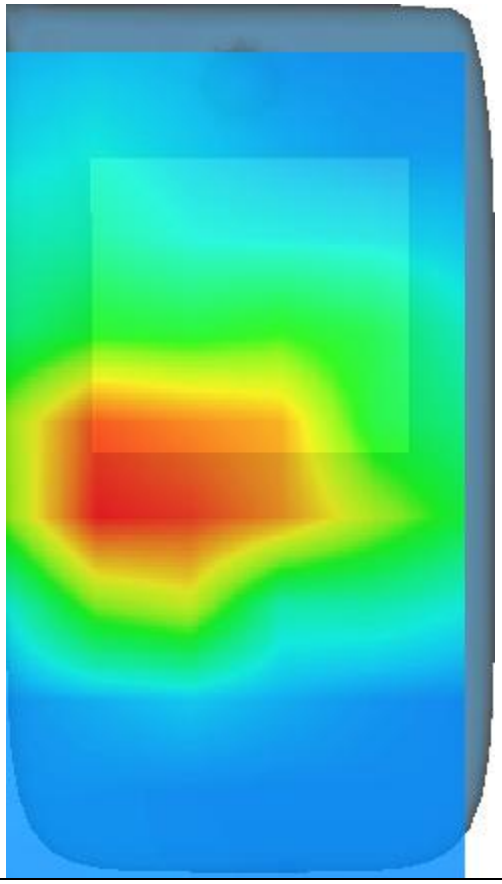
SURFACE SAR	VOLUME SAR
	

Maximum location: X=-21.00, Y=-8.00
SAR Peak: 1.28 W/kg

SAR 10g (W/Kg)	0.392379
SAR 1g (W/Kg)	0.736639

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	1.5217	0.7698	0.2823	0.2604	0.0920	0.0971	0.0392



3D screen shot	Hot spot position
	

MEASUREMENT 7

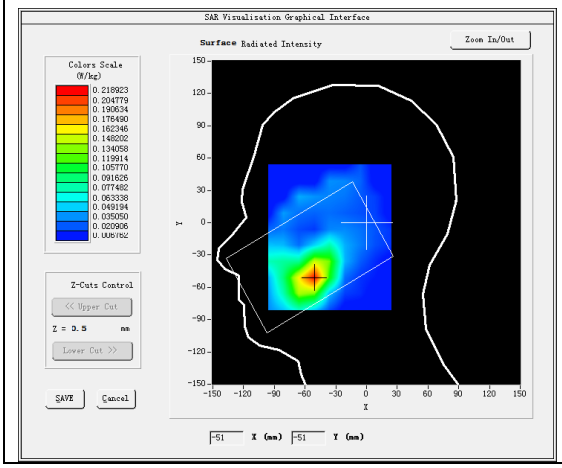
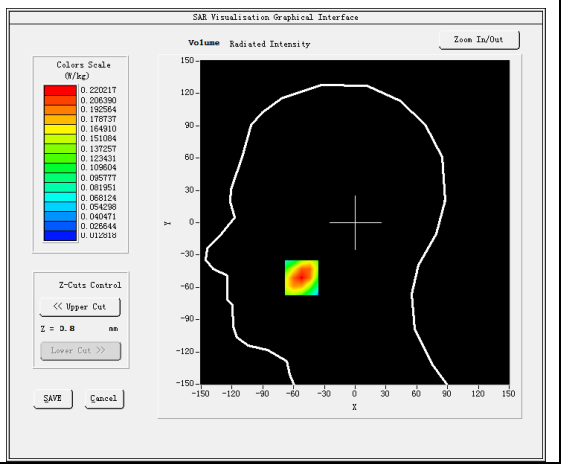
Date of measurement: 26/2/2022

A. Experimental conditions.

Area Scan	dx=15mm dy=15mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Left head
Device Position	Cheek
Band	Band4_WCDMA1700
Channels	Middle
Signal	WCDMA (Crest factor: 1.0)

B. SAR Measurement Results

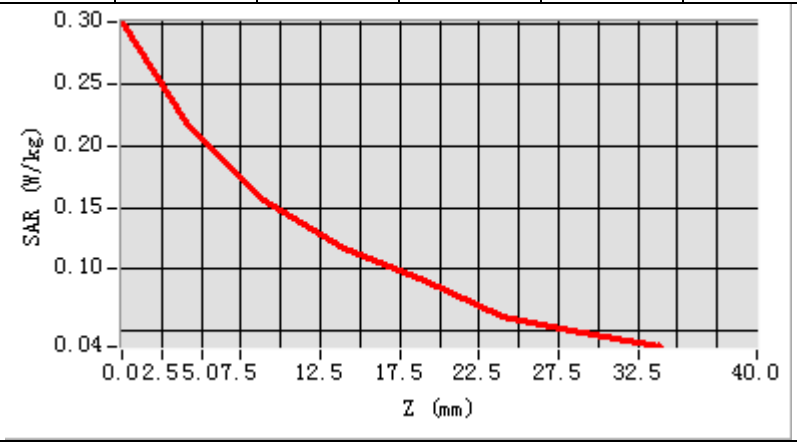
Frequency (MHz)	1732.600000
Relative permittivity (real part)	39.542706
Relative permittivity (imaginary part)	13.905303
Conductivity (S/m)	1.337999
Variation (%)	-3.650000

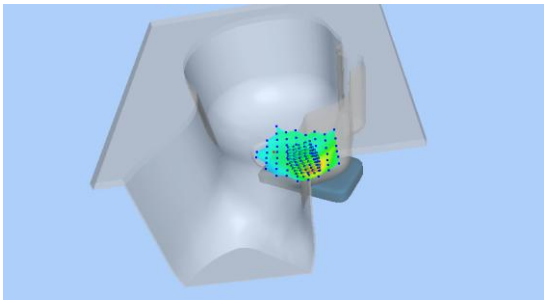
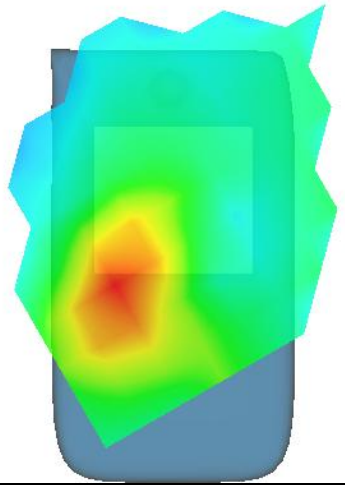
SURFACE SAR	VOLUME SAR
	

Maximum location: X=-52.00, Y=-51.00
SAR Peak: 0.30 W/kg

SAR 10g (W/Kg)	0.134779
SAR 1g (W/Kg)	0.211410

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.3010	0.2202	0.1554	0.1163	0.0903	0.0612	0.0479



3D screen shot	Hot spot position
	

MEASUREMENT 8

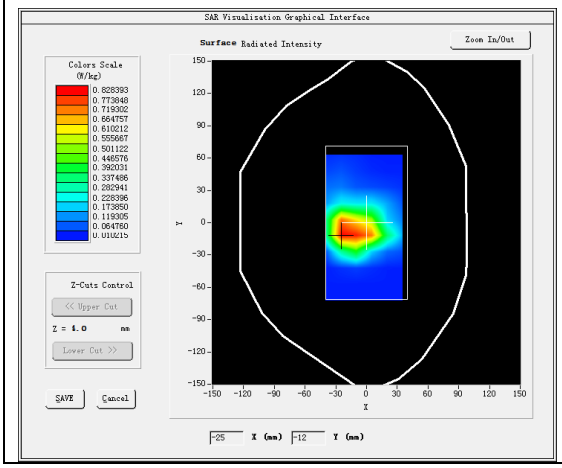
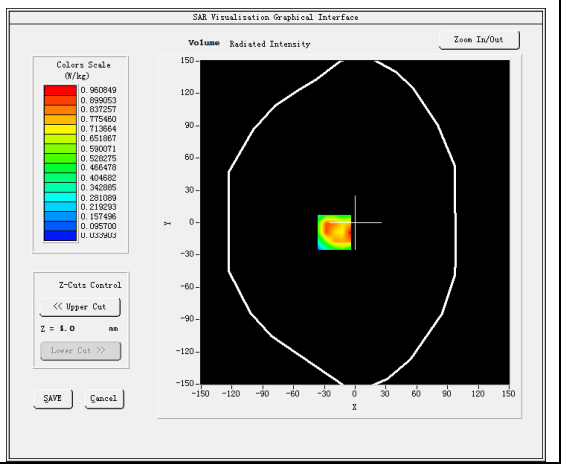
Date of measurement: 26/2/2022

A. Experimental conditions.

Area Scan	dx=15mm dy=15mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Body
Band	Band4_WCDMA1700
Channels	Middle
Signal	WCDMA (Crest factor: 1.0)

B. SAR Measurement Results

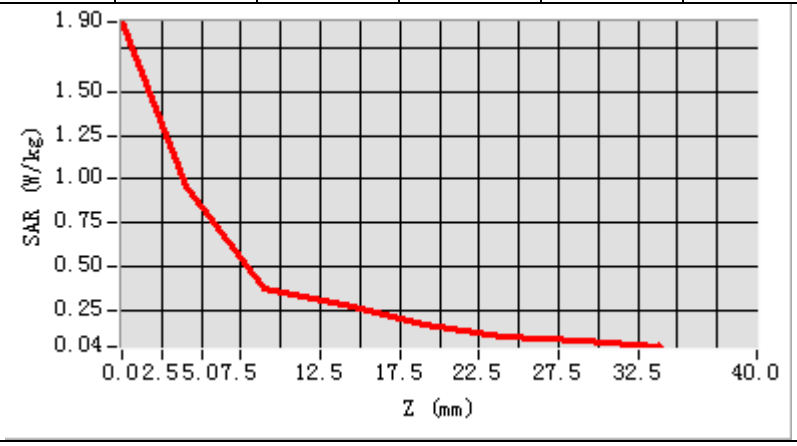
Frequency (MHz)	1732.600000
Relative permittivity (real part)	39.542706
Relative permittivity (imaginary part)	13.905303
Conductivity (S/m)	1.337999
Variation (%)	-0.740000

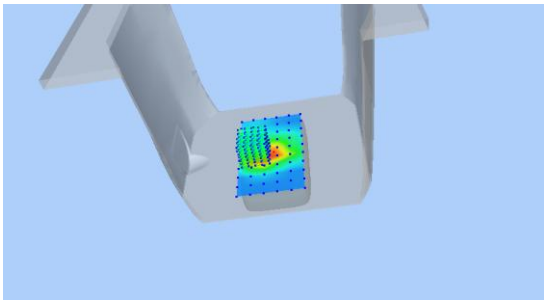
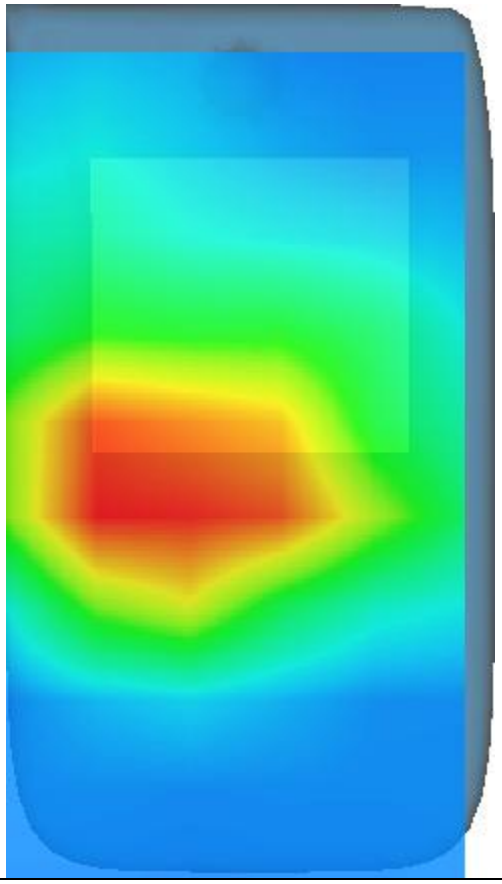
SURFACE SAR	**VOLUME SAR**
	

Maximum location: X=-20.00, Y=-9.00
SAR Peak: 1.57 W/kg

SAR 10g (W/Kg)	0.485003
SAR 1g (W/Kg)	0.865106

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	1.8997	0.9608	0.3699	0.2801	0.1676	0.0981	0.0747



3D screen shot	Hot spot position
	

MEASUREMENT 9

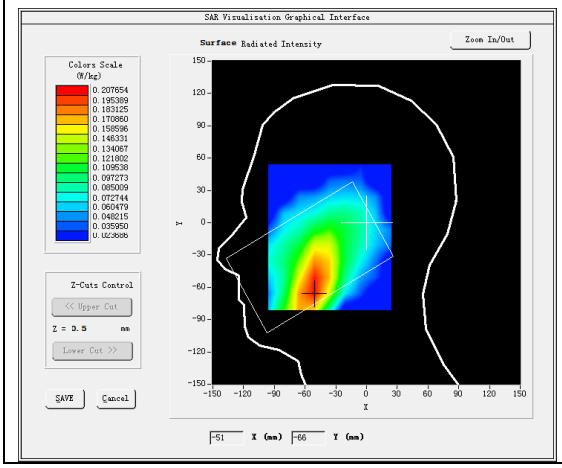
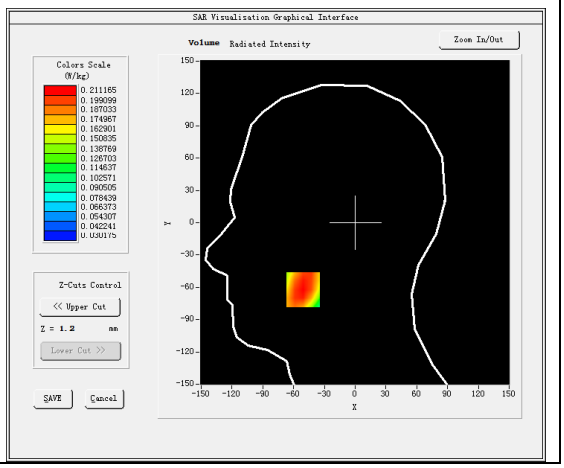
Date of measurement: 4/3/2022

A. Experimental conditions.

Area Scan	dx=15mm dy=15mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Left head
Device Position	Cheek
Band	Band5_WCDMA850
Channels	Middle
Signal	WCDMA (Crest factor: 1.0)

B. SAR Measurement Results

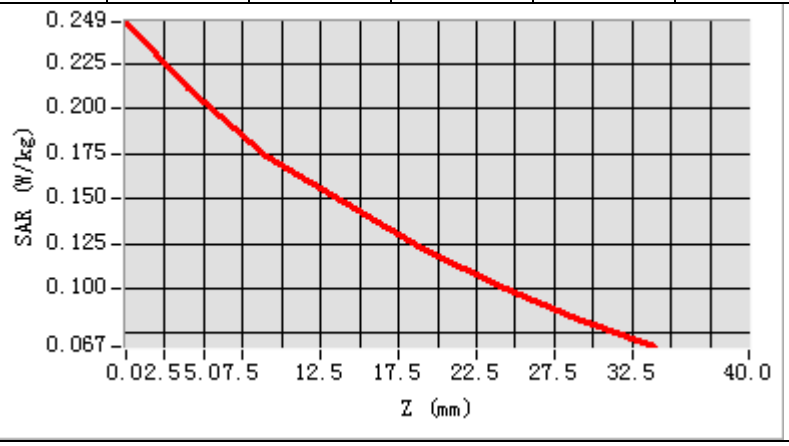
Frequency (MHz)	836.400000
Relative permittivity (real part)	42.388927
Relative permittivity (imaginary part)	19.956566
Conductivity (S/m)	0.927315
Variation (%)	-0.100000

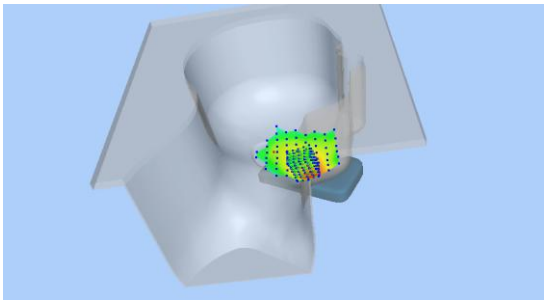
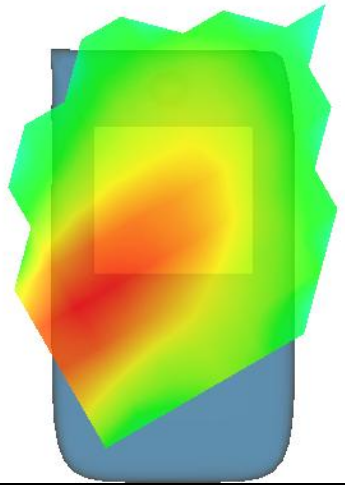
SURFACE SAR	VOLUME SAR
	

Maximum location: X=-51.00, Y=-62.00
SAR Peak: 0.25 W/kg

SAR 10g (W/Kg)	0.161881
SAR 1g (W/Kg)	0.210439

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.2486	0.2112	0.1741	0.1481	0.1218	0.1009	0.0826



3D screen shot	Hot spot position
	

MEASUREMENT 10

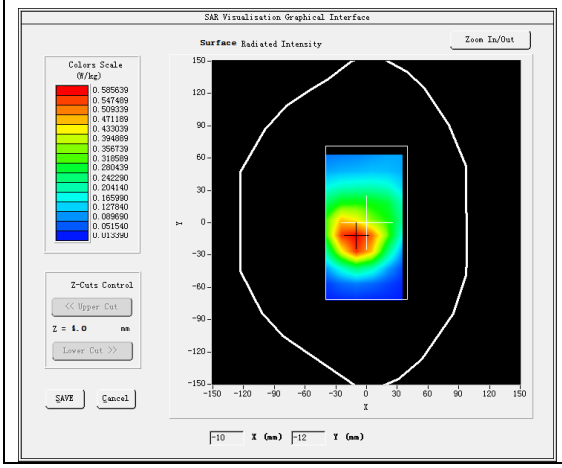
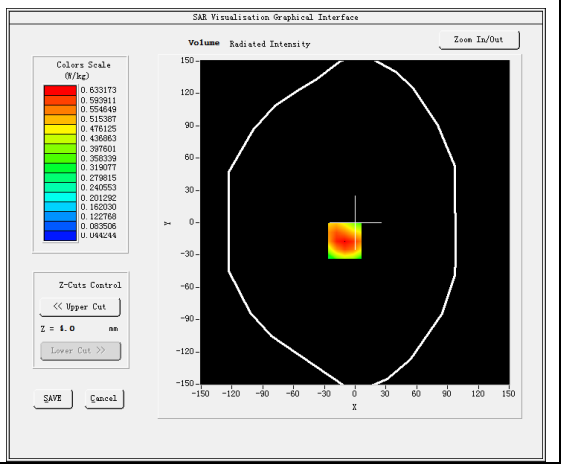
Date of measurement: 4/3/2022

A. Experimental conditions.

Area Scan	dx=15mm dy=15mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Body
Band	Band5_WCDMA850
Channels	Middle
Signal	WCDMA (Crest factor: 1.0)

B. SAR Measurement Results

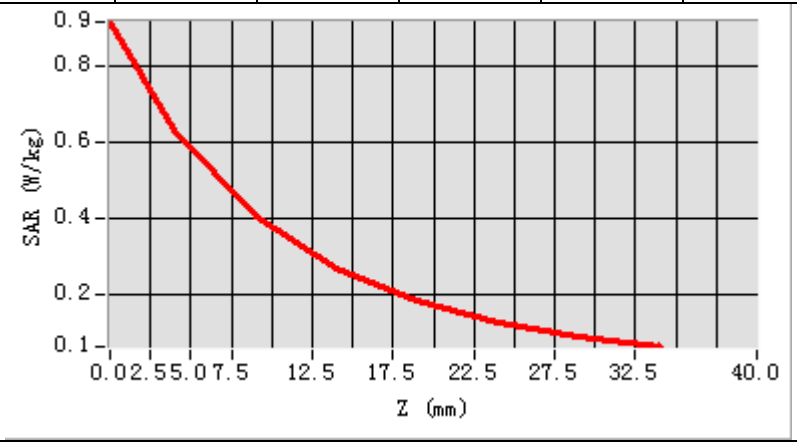
Frequency (MHz)	836.400000
Relative permittivity (real part)	42.388927
Relative permittivity (imaginary part)	19.956566
Conductivity (S/m)	0.927315
Variation (%)	-0.200000

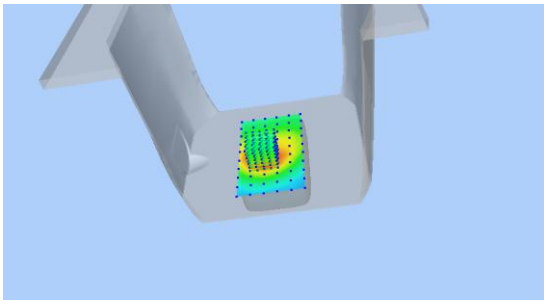
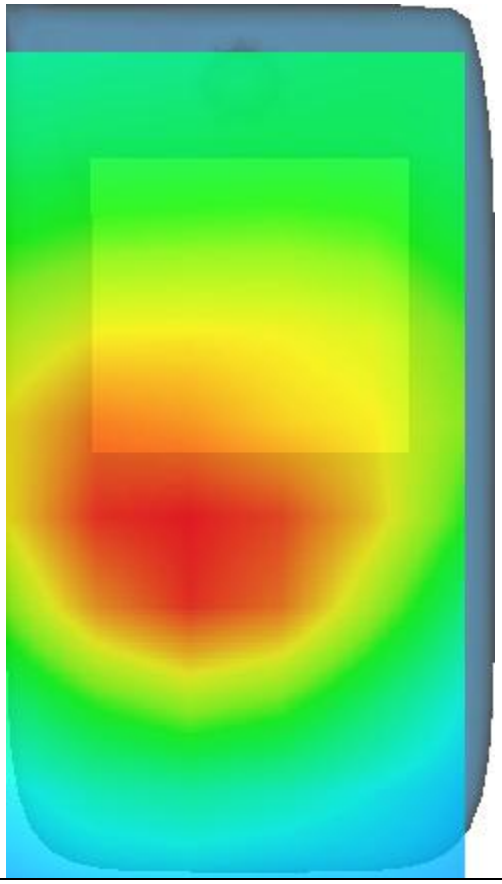
SURFACE SAR	VOLUME SAR
	

Maximum location: X=-10.00, Y=-17.00
SAR Peak: 0.92 W/kg

SAR 10g (W/Kg)	0.385758
SAR 1g (W/Kg)	0.622409

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.9162	0.6332	0.4030	0.2684	0.1825	0.1255	0.0870



3D screen shot	Hot spot position
	

MEASUREMENT 11

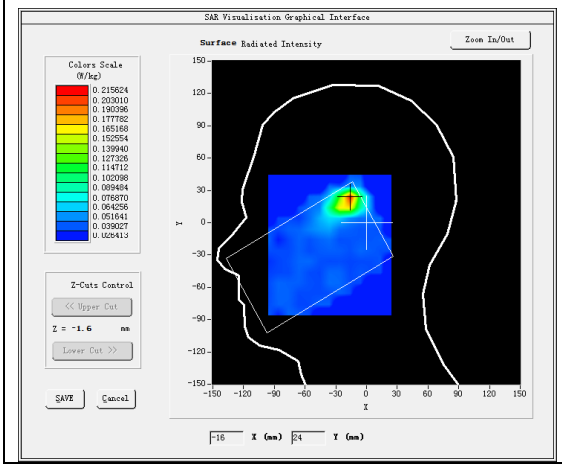
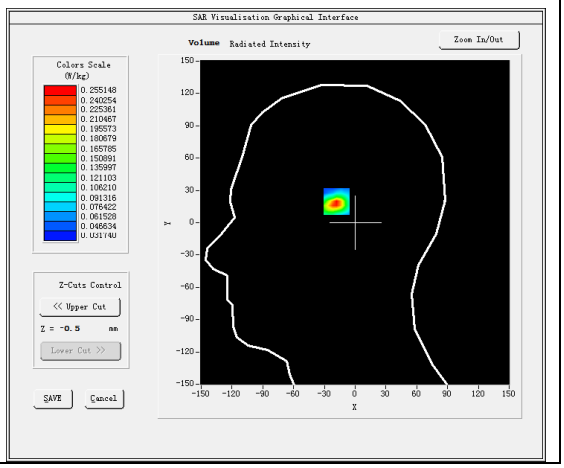
Date of measurement: 8/3/2022

A. Experimental conditions.

Area Scan	dx=10mm dy=10mm, h= 2.00 mm
ZoomScan	7x7x12,dx=4mm dy=4mm dz=2mm
Phantom	Left head
Device Position	Cheek
Band	IEEE 802.11a U-NII
Channels	Middle
Signal	IEEE802.11a (Crest factor: 1.0)

B. SAR Measurement Results

Frequency (MHz)	5200.000000
Relative permittivity (real part)	36.742443
Relative permittivity (imaginary part)	16.499775
Conductivity (S/m)	4.766601
Variation (%)	-0.480000

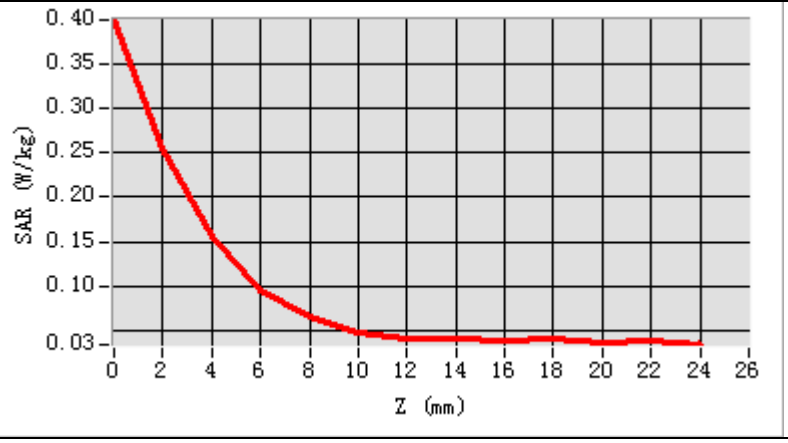
SURFACE SAR	VOLUME SAR
	

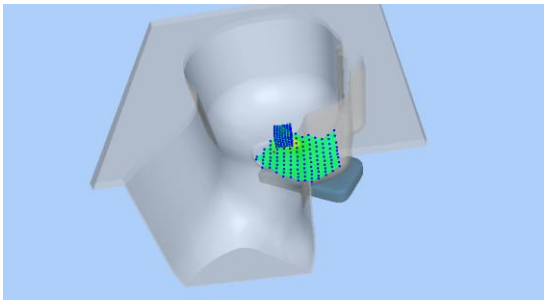
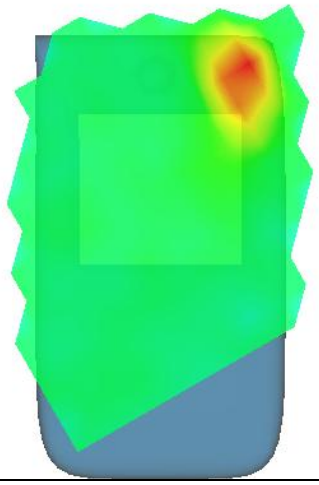
Maximum location: X=-17.00, Y=22.00

SAR Peak: 0.62 W/kg

SAR 10g (W/Kg)	0.095085
SAR 1g (W/Kg)	0.233720

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00	20.00	22.00
SAR (W/Kg)	0.3985	0.2551	0.1555	0.0963	0.0673	0.0474	0.0423	0.0416	0.0386	0.0410	0.0366	0.0399



3D screen shot	Hot spot position
	

MEASUREMENT 12

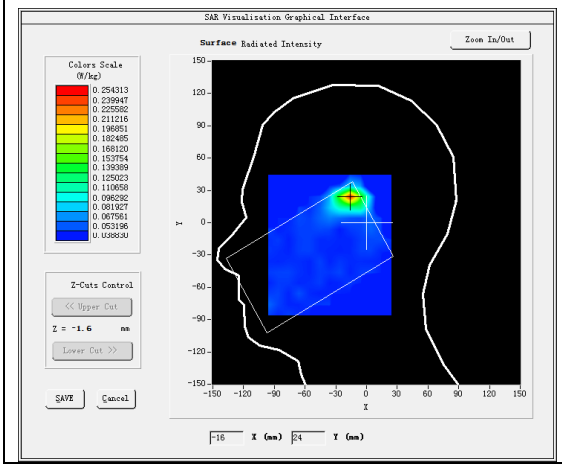
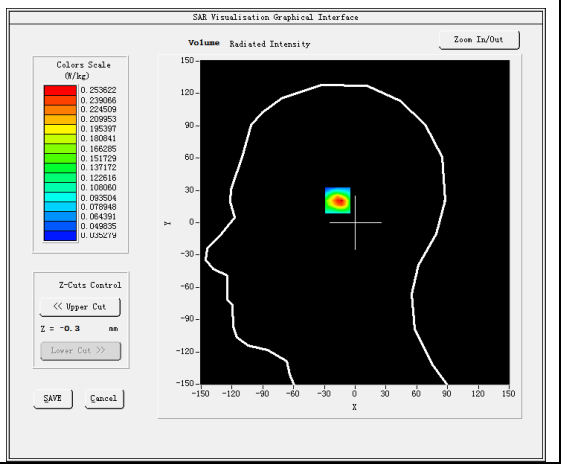
Date of measurement: 9/3/2022

A. Experimental conditions.

Area Scan	dx=10mm dy=10mm, h= 2.00 mm
ZoomScan	7x7x12,dx=4mm dy=4mm dz=2mm
Phantom	Left head
Device Position	Cheek
Band	IEEE 802.11a U-NII
Channels	Middle
Signal	IEEE802.11a (Crest factor: 1.0)

B. SAR Measurement Results

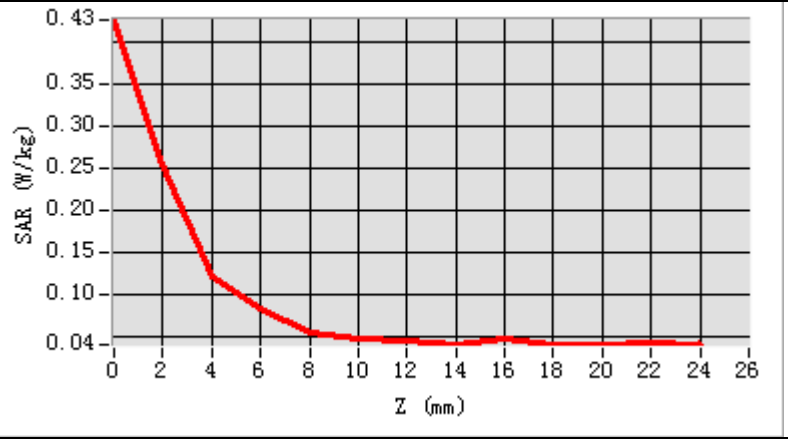
Frequency (MHz)	5785.000000
Relative permittivity (real part)	35.729591
Relative permittivity (imaginary part)	16.759590
Conductivity (S/m)	5.386346
Variation (%)	-0.080000

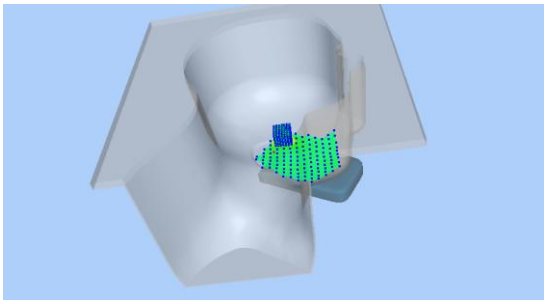
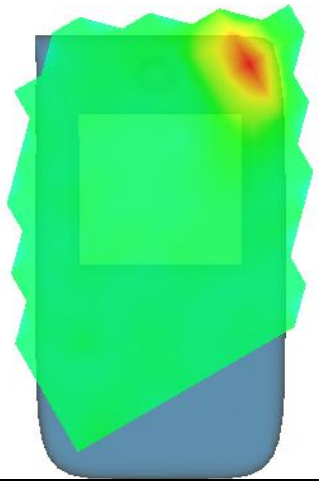
SURFACE SAR	VOLUME SAR
	

Maximum location: X=-16.00, Y=24.00
SAR Peak: 0.67 W/kg

SAR 10g (W/Kg)	0.102002
SAR 1g (W/Kg)	0.241083

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00	20.00	22.00
SAR (W/Kg)	0.4263	0.2536	0.1210	0.0821	0.0542	0.0471	0.0454	0.0399	0.0476	0.0406	0.0407	0.0425



3D screen shot	Hot spot position
	

MEASUREMENT 13

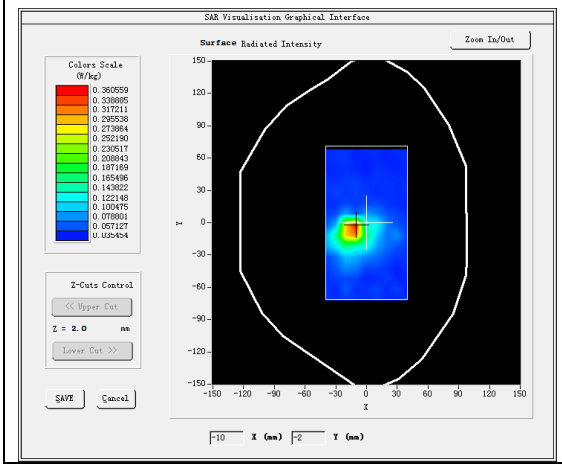
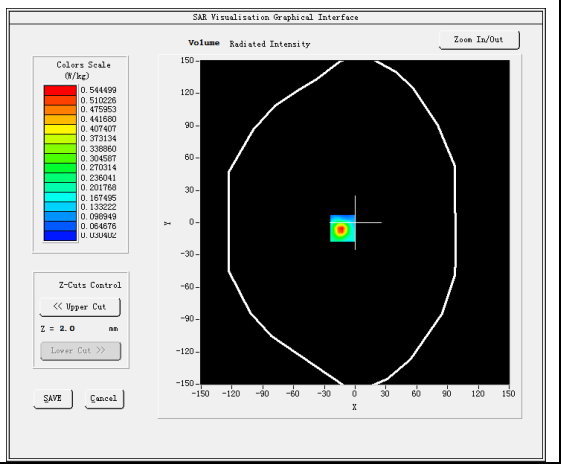
Date of measurement: 8/3/2022

A. Experimental conditions.

Area Scan	dx=10mm dy=10mm, h= 2.00 mm
ZoomScan	7x7x12,dx=4mm dy=4mm dz=2mm
Phantom	Validation plane
Device Position	Body
Band	IEEE 802.11a U-NII
Channels	Middle
Signal	IEEE802.11a (Crest factor: 1.0)

B. SAR Measurement Results

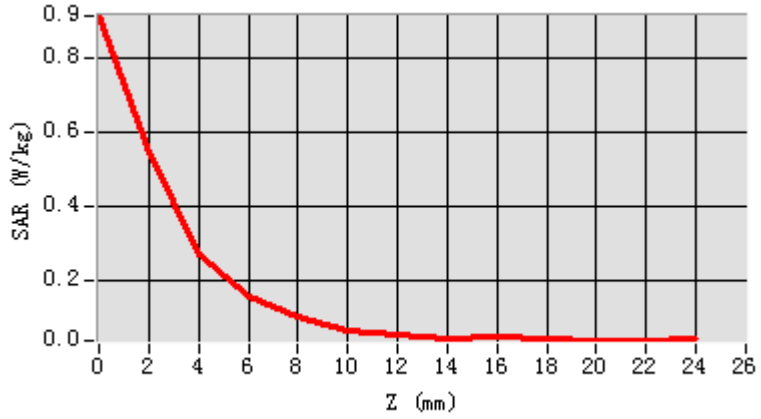
Frequency (MHz)	5200.000000
Relative permittivity (real part)	36.742443
Relative permittivity (imaginary part)	16.499775
Conductivity (S/m)	4.766601
Variation (%)	1.730000

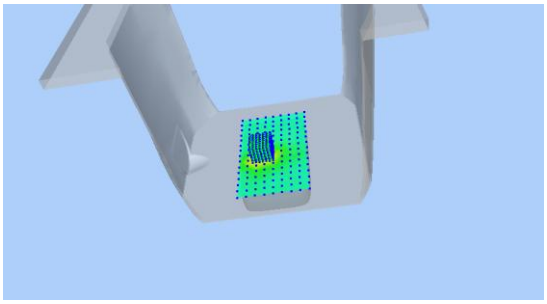
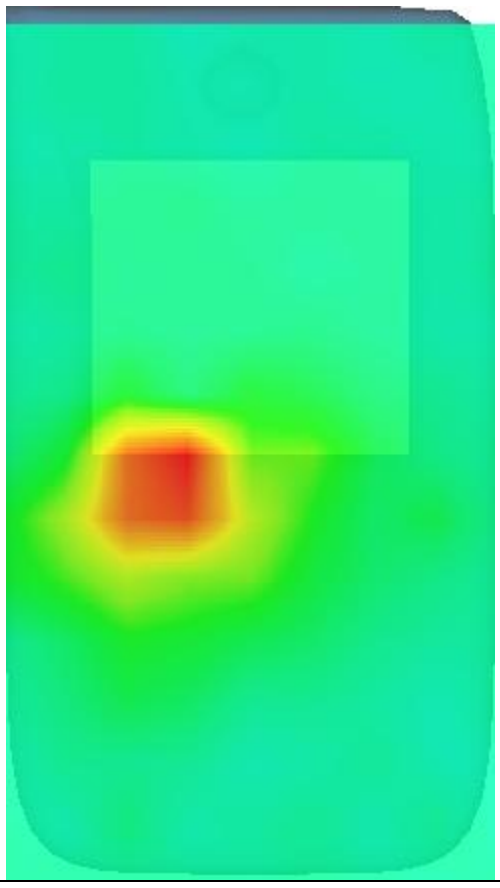
SURFACE SAR	VOLUME SAR
	

Maximum location: X=-12.00, Y=-5.00
SAR Peak: 1.01 W/kg

SAR 10g (W/Kg)	0.107360
SAR 1g (W/Kg)	0.291309

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00	20.00	22.00
SAR (W/Kg)	0.9147	0.5445	0.2690	0.1570	0.0992	0.0608	0.0544	0.0393	0.0449	0.0410	0.0364	0.0359



3D screen shot	Hot spot position
	

MEASUREMENT 14

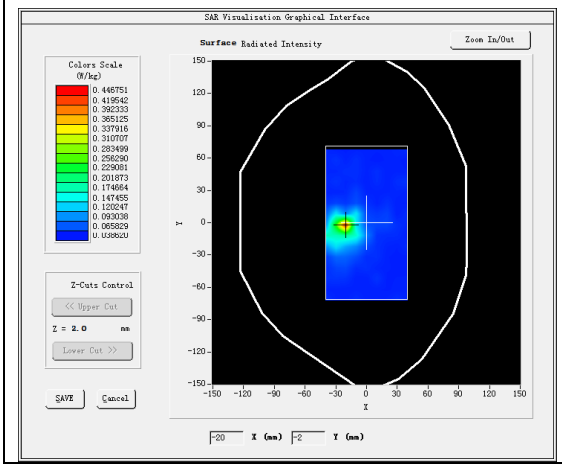
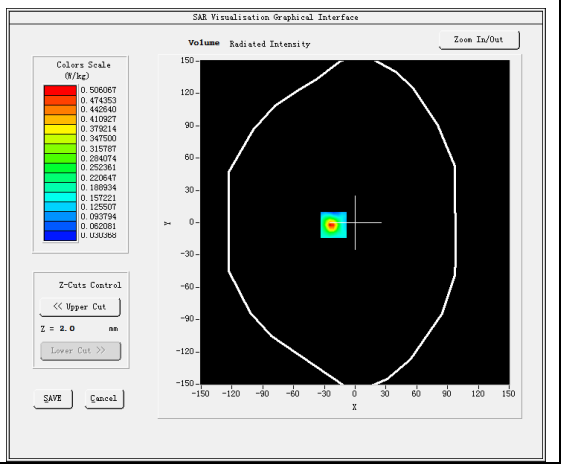
Date of measurement: 9/3/2022

A. Experimental conditions.

Area Scan	dx=10mm dy=10mm, h= 2.00 mm
ZoomScan	7x7x12,dx=4mm dy=4mm dz=2mm
Phantom	Validation plane
Device Position	Body
Band	IEEE 802.11a U-NII
Channels	Middle
Signal	IEEE802.11a (Crest factor: 1.0)

B. SAR Measurement Results

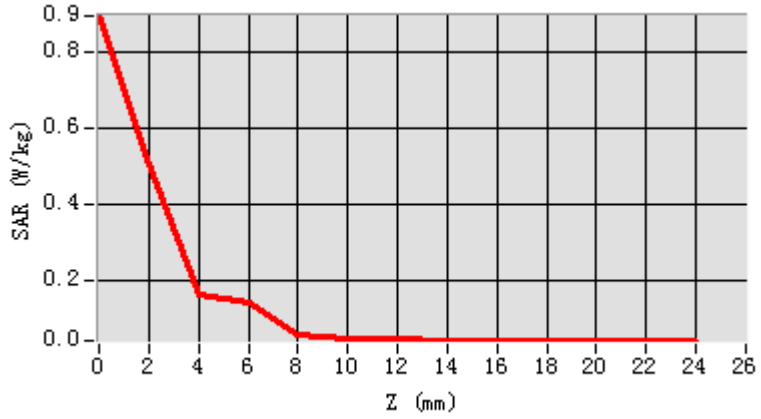
Frequency (MHz)	5785.000000
Relative permittivity (real part)	35.729591
Relative permittivity (imaginary part)	16.759590
Conductivity (S/m)	5.386346
Variation (%)	-3.120000

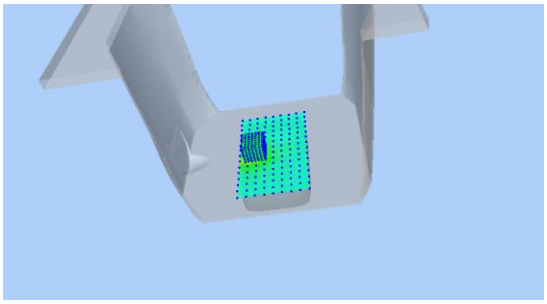
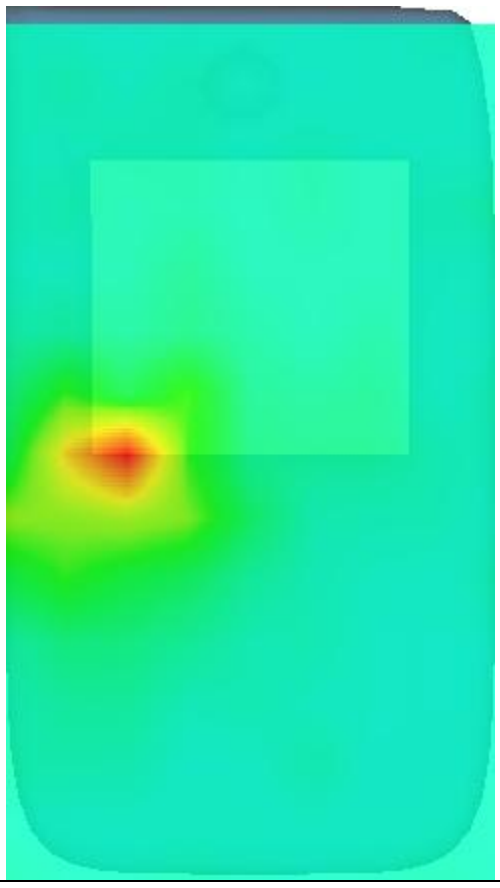
SURFACE SAR	VOLUME SAR
	

Maximum location: X=-21.00, Y=-2.00
SAR Peak: 0.95 W/kg

SAR 10g (W/Kg)	0.098660
SAR 1g (W/Kg)	0.261379

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00	20.00	22.00
SAR (W/Kg)	0.8935	0.5061	0.1622	0.1382	0.0543	0.0464	0.0431	0.0421	0.0400	0.0413	0.0404	0.0414



3D screen shot	Hot spot position
	

MEASUREMENT 15

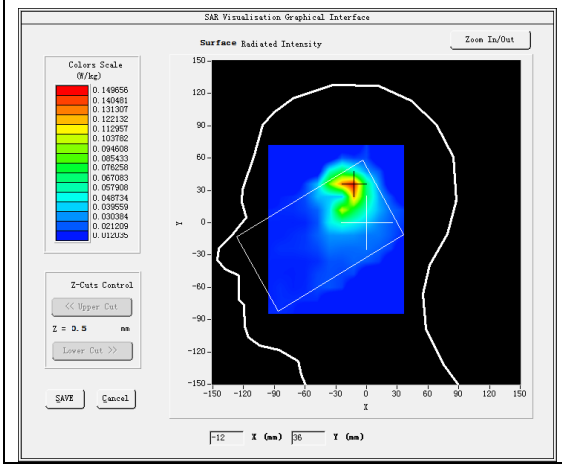
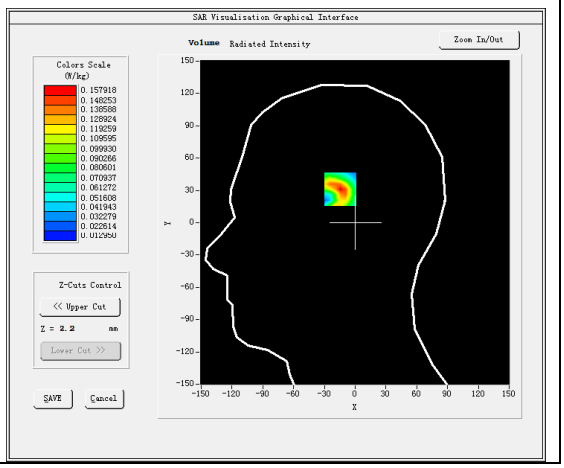
Date of measurement: 2/3/2022

A. Experimental conditions.

Area Scan	dx=12mm dy=12mm, h= 5.00 mm
ZoomScan	7x7x7,dx=5mm dy=5mm dz=5mm
Phantom	Left head
Device Position	Cheek
Band	IEEE 802.11b ISM
Channels	Middle
Signal	IEEE802.11b (Crest factor: 1.0)

B. SAR Measurement Results

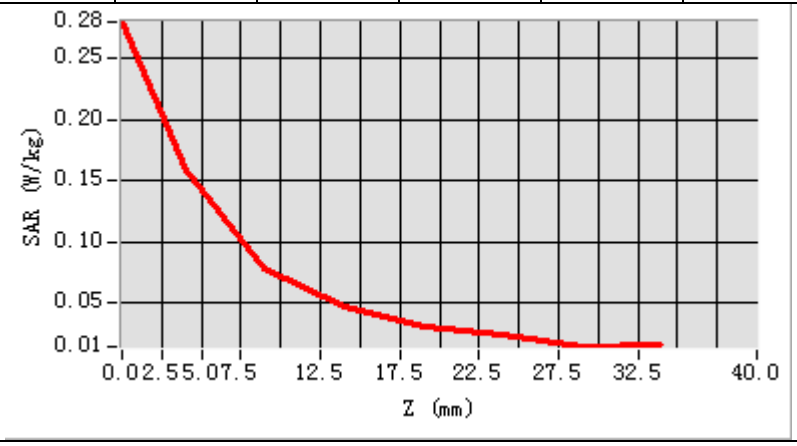
Frequency (MHz)	2437.000000
Relative permittivity (real part)	38.987942
Relative permittivity (imaginary part)	13.201016
Conductivity (S/m)	1.787271
Variation (%)	3.250000

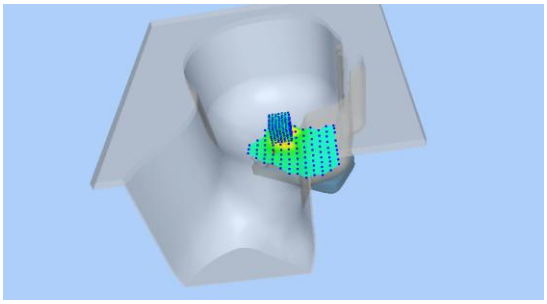
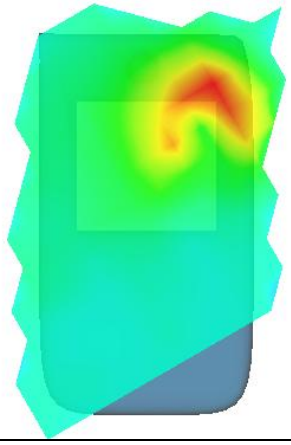
SURFACE SAR	VOLUME SAR
	

Maximum location: X=-14.00, Y=34.00
SAR Peak: 0.28 W/kg

SAR 10g (W/Kg)	0.071483
SAR 1g (W/Kg)	0.144423

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.2804	0.1579	0.0782	0.0459	0.0309	0.0231	0.0137



3D screen shot	Hot spot position
	

MEASUREMENT 16

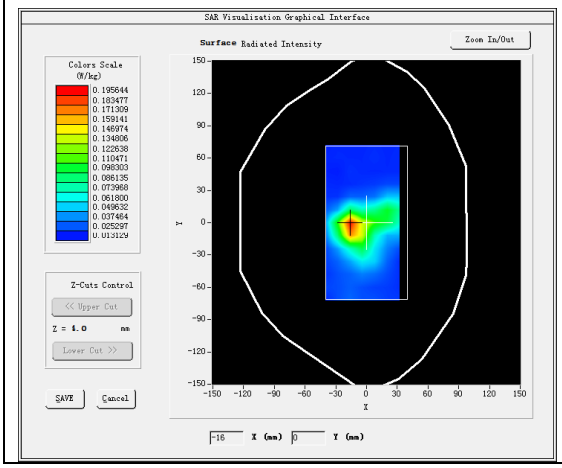
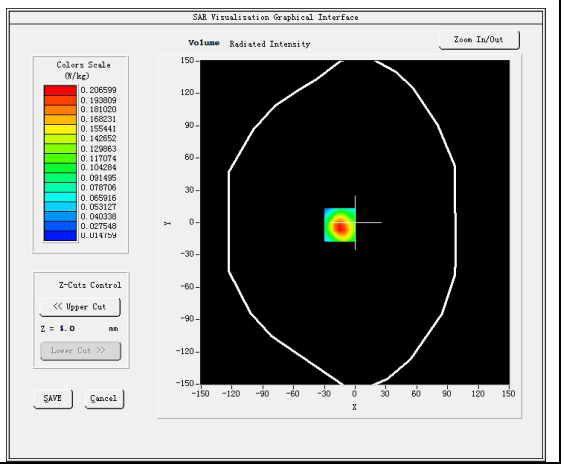
Date of measurement: 2/3/2022

A. Experimental conditions.

Area Scan	dx=12mm dy=12mm, h= 5.00 mm
ZoomScan	7x7x7,dx=5mm dy=5mm dz=5mm
Phantom	Validation plane
Device Position	Body
Band	IEEE 802.11b ISM
Channels	Middle
Signal	IEEE802.11b (Crest factor: 1.0)

B. SAR Measurement Results

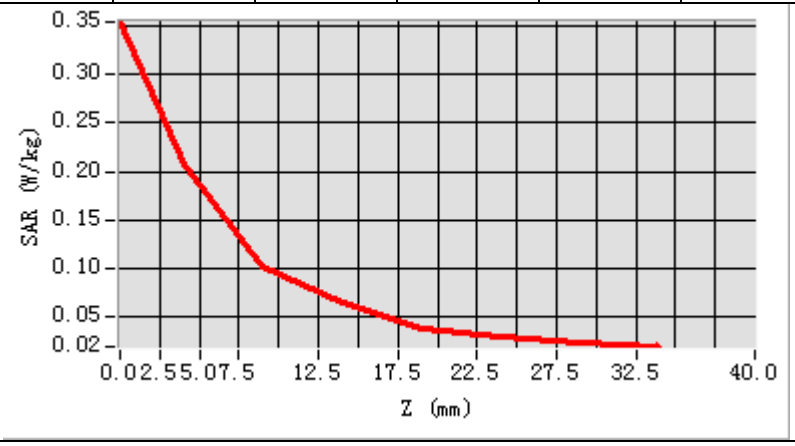
Frequency (MHz)	2437.000000
Relative permittivity (real part)	38.987942
Relative permittivity (imaginary part)	13.201016
Conductivity (S/m)	1.787271
Variation (%)	-4.440000

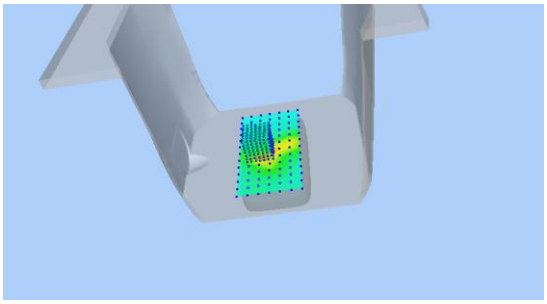
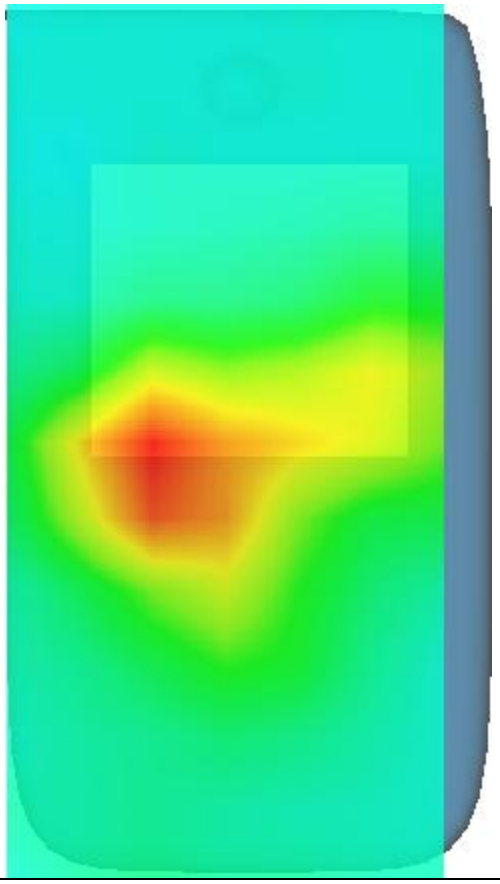
SURFACE SAR	VOLUME SAR
	

Maximum location: X=-15.00, Y=-2.00
SAR Peak: 0.33 W/kg

SAR 10g (W/Kg)	0.101436
SAR 1g (W/Kg)	0.193527

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.3541	0.2066	0.1017	0.0640	0.0378	0.0298	0.0231



3D screen shot	Hot spot position
	

MEASUREMENT 17

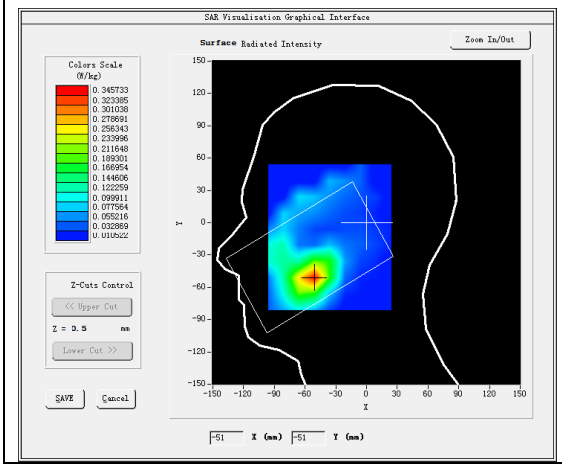
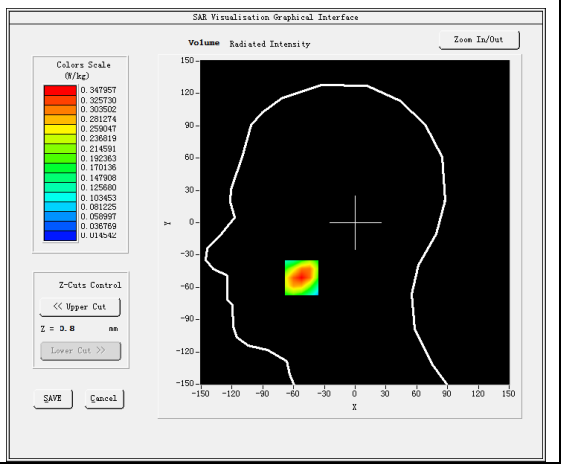
Date of measurement: 10/3/2022

A. Experimental conditions.

Area Scan	dx=15mm dy=15mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Left head
Device Position	Cheek
Band	LTE band 2
Channels	Middle
Signal	LTE (Crest factor: 1.0)

B. SAR Measurement Results

Frequency (MHz)	1880.000000
Relative permittivity (real part)	38.528633
Relative permittivity (imaginary part)	13.883346
Conductivity (S/m)	1.450038
Variation (%)	-4.570000

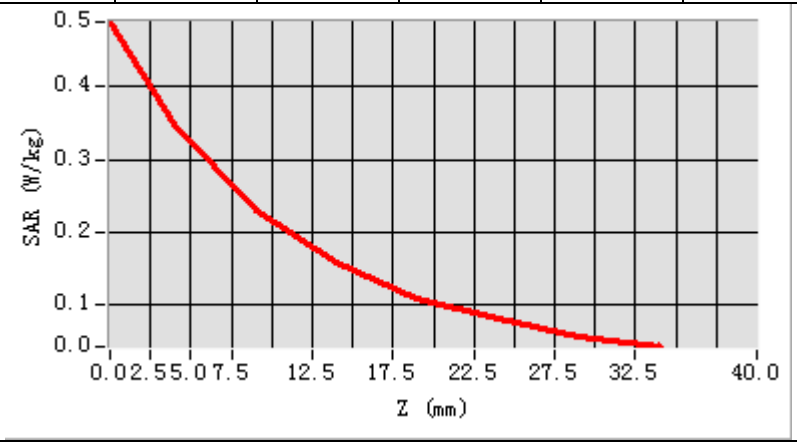
SURFACE SAR	VOLUME SAR
	

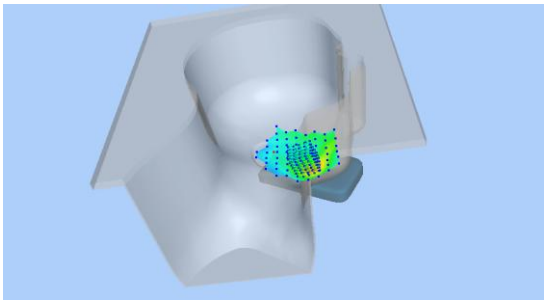
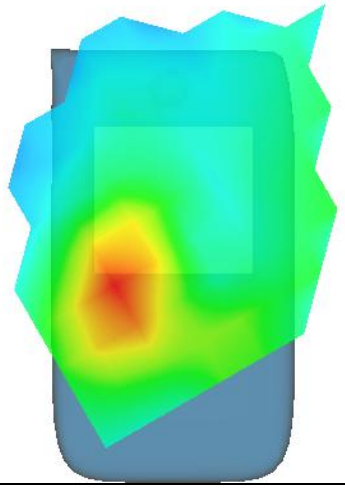
Maximum location: X=-52.00, Y=-51.00

SAR Peak: 0.49 W/kg

SAR 10g (W/Kg)	0.199745
SAR 1g (W/Kg)	0.338966

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.4892	0.3480	0.2309	0.1581	0.1101	0.0805	0.0556



3D screen shot	Hot spot position
	

MEASUREMENT 18

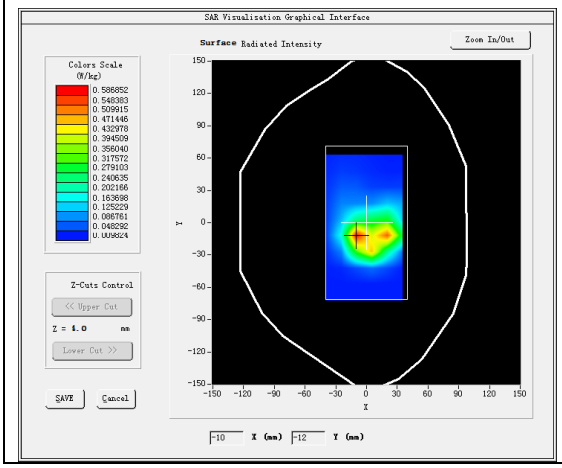
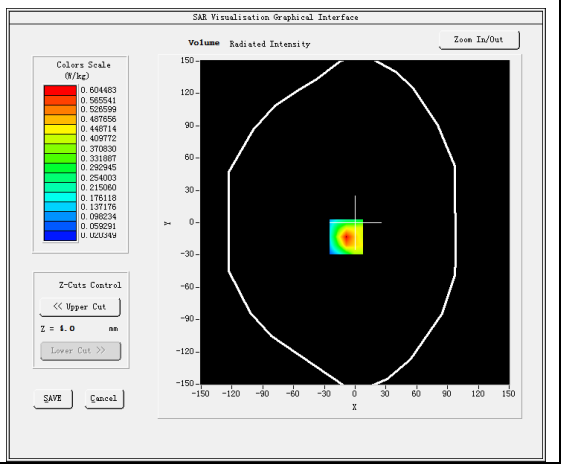
Date of measurement: 10/3/2022

A. Experimental conditions.

Area Scan	dx=15mm dy=15mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Body
Band	LTE band 2
Channels	Middle
Signal	LTE (Crest factor: 1.0)

B. SAR Measurement Results

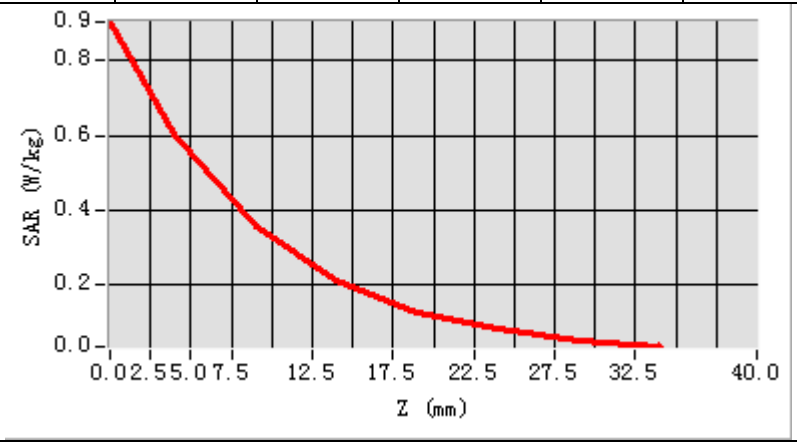
Frequency (MHz)	1880.000000
Relative permittivity (real part)	38.528633
Relative permittivity (imaginary part)	13.883346
Conductivity (S/m)	1.450038
Variation (%)	-1.470000

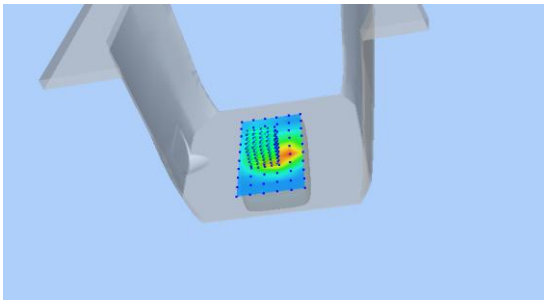
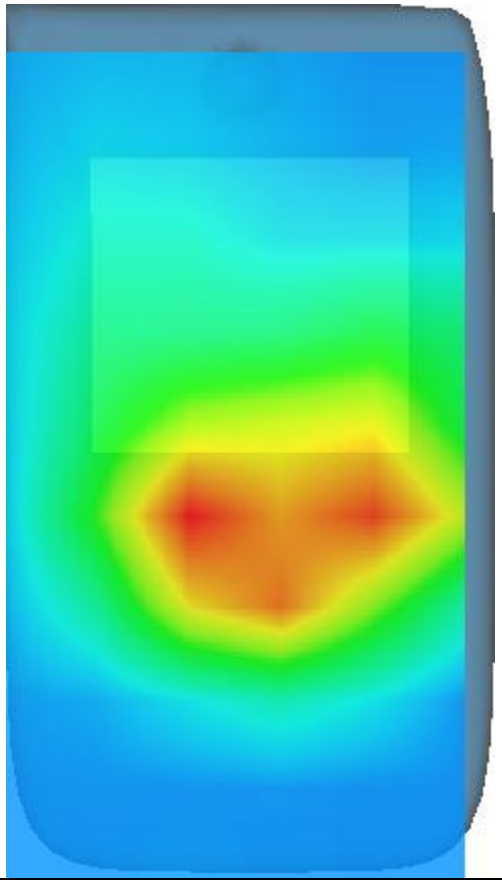
SURFACE SAR	VOLUME SAR
	

Maximum location: X=-9.00, Y=-13.00
SAR Peak: 0.93 W/kg

SAR 10g (W/Kg)	0.294710
SAR 1g (W/Kg)	0.573722

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.9034	0.6045	0.3588	0.2116	0.1253	0.0804	0.0488



3D screen shot	Hot spot position
	

MEASUREMENT 19

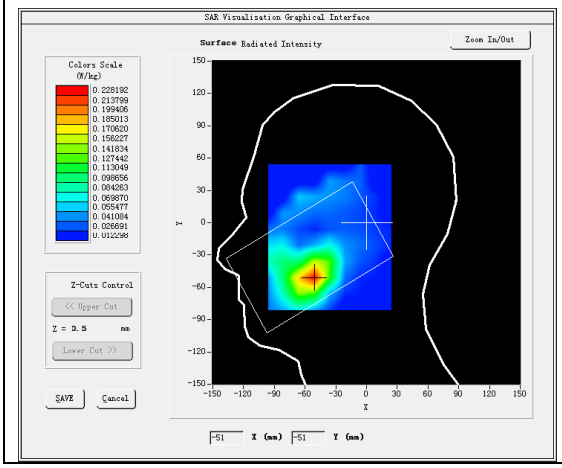
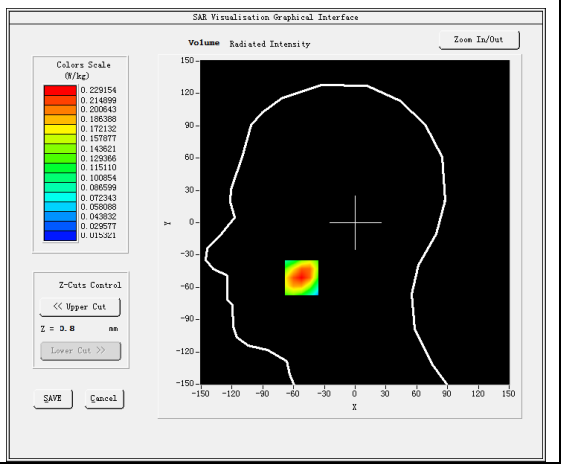
Date of measurement: 26/2/2022

A. Experimental conditions.

Area Scan	dx=15mm dy=15mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Left head
Device Position	Cheek
Band	LTE band 4
Channels	Middle
Signal	LTE (Crest factor: 1.0)

B. SAR Measurement Results

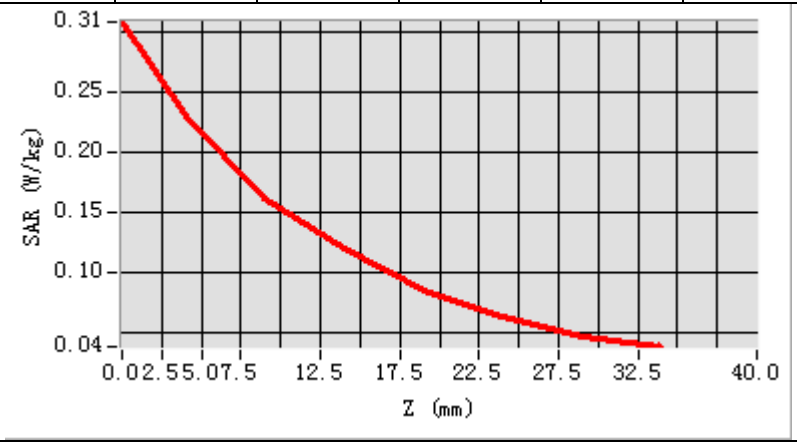
Frequency (MHz)	1732.500000
Relative permittivity (real part)	39.550606
Relative permittivity (imaginary part)	13.890153
Conductivity (S/m)	1.336927
Variation (%)	-4.820000

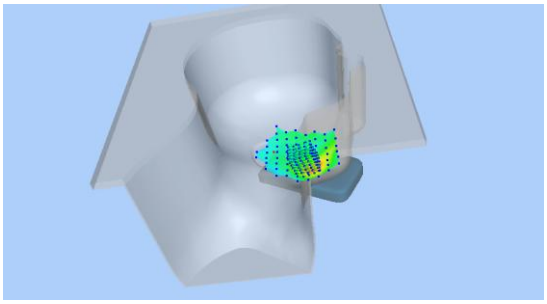
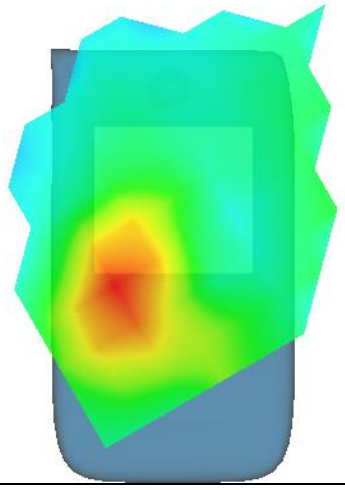
SURFACE SAR	VOLUME SAR
	

Maximum location: X=-52.00, Y=-51.00
SAR Peak: 0.31 W/kg

SAR 10g (W/Kg)	0.139648
SAR 1g (W/Kg)	0.218842

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.3080	0.2292	0.1613	0.1198	0.0855	0.0635	0.0461



3D screen shot	Hot spot position
	

MEASUREMENT 20

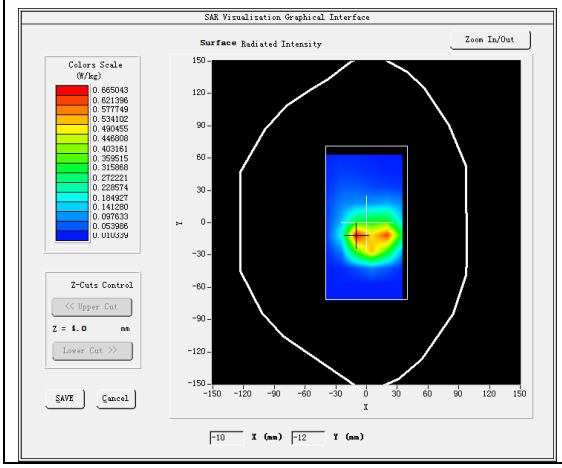
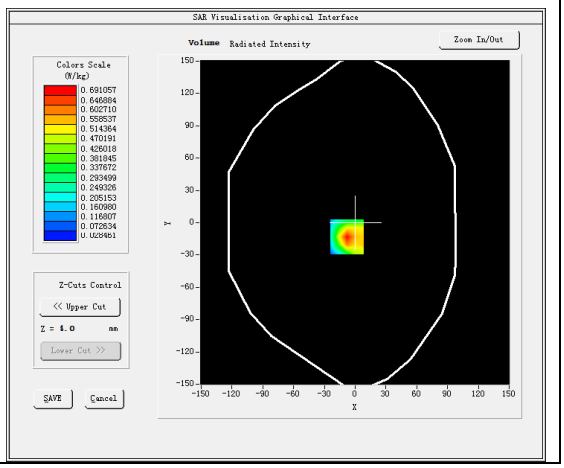
Date of measurement: 26/2/2022

A. Experimental conditions.

Area Scan	dx=15mm dy=15mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Body
Band	LTE band 4
Channels	Middle
Signal	LTE (Crest factor: 1.0)

B. SAR Measurement Results

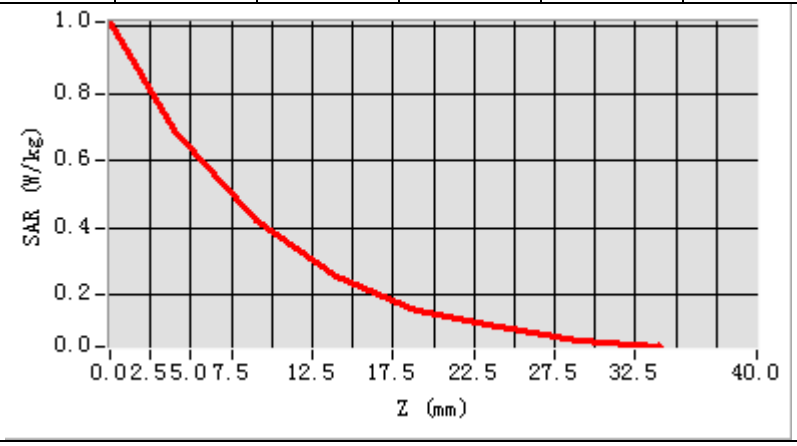
Frequency (MHz)	1732.500000
Relative permittivity (real part)	39.550606
Relative permittivity (imaginary part)	13.890153
Conductivity (S/m)	1.336927
Variation (%)	-0.910000

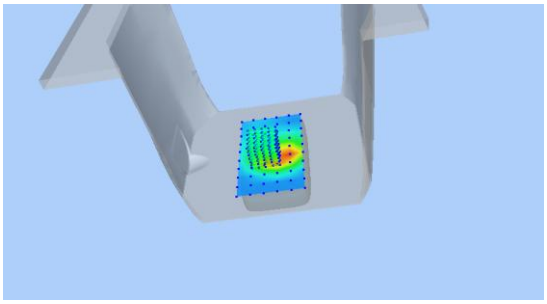
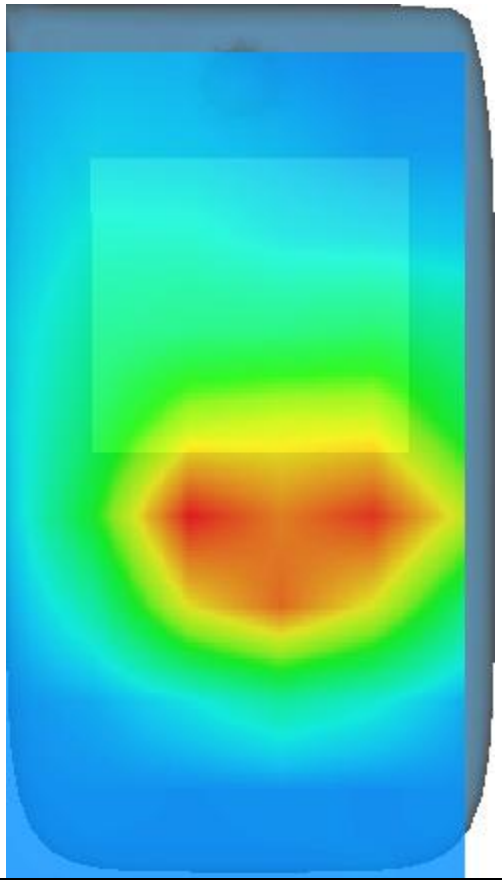
SURFACE SAR	VOLUME SAR
	

Maximum location: X=-8.00, Y=-13.00
SAR Peak: 1.03 W/kg

SAR 10g (W/Kg)	0.341877
SAR 1g (W/Kg)	0.635264

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	1.0124	0.6911	0.4213	0.2576	0.1557	0.1027	0.0642



3D screen shot	Hot spot position
	

MEASUREMENT 21

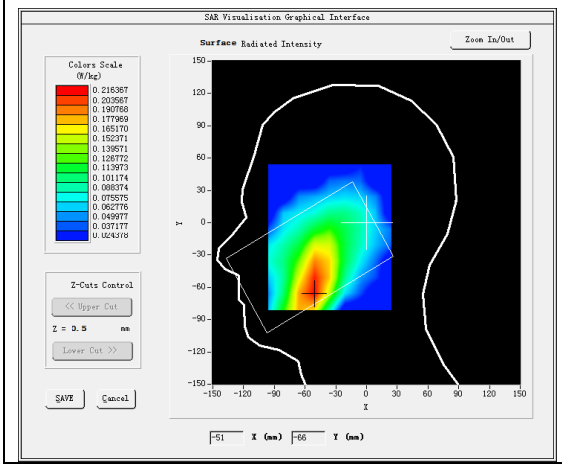
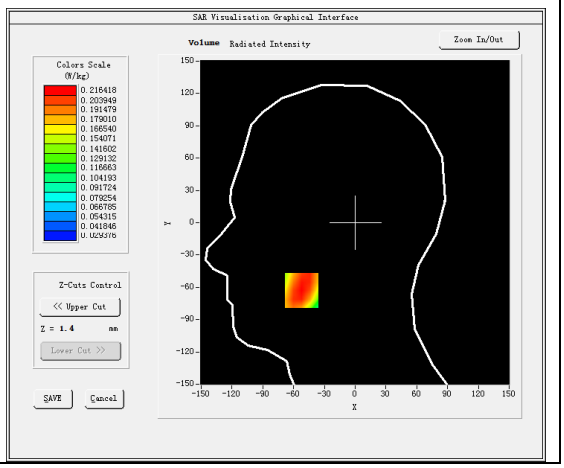
Date of measurement: 4/3/2022

A. Experimental conditions.

Area Scan	dx=15mm dy=15mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Left head
Device Position	Cheek
Band	LTE band 5
Channels	Middle
Signal	LTE (Crest factor: 1.0)

B. SAR Measurement Results

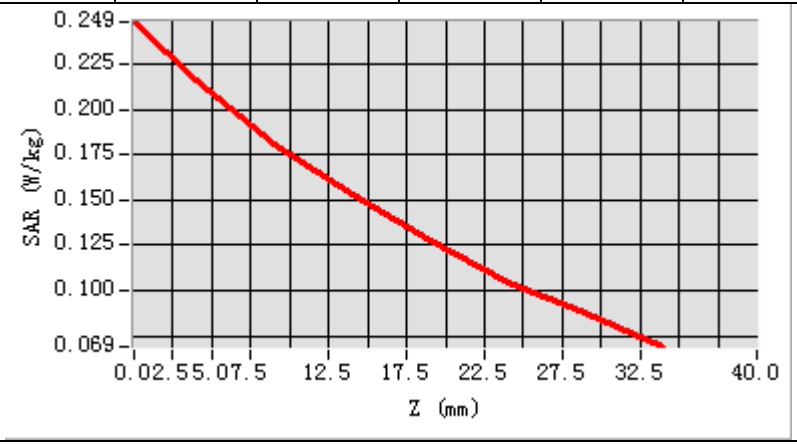
Frequency (MHz)	836.500000
Relative permittivity (real part)	42.391518
Relative permittivity (imaginary part)	19.955225
Conductivity (S/m)	0.927364
Variation (%)	0.660000

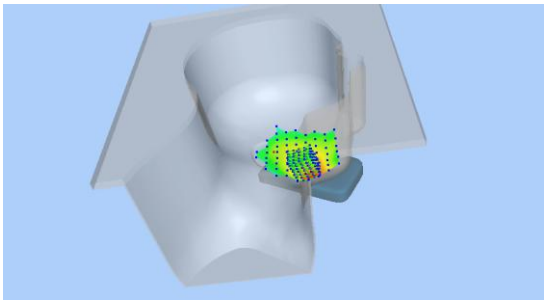
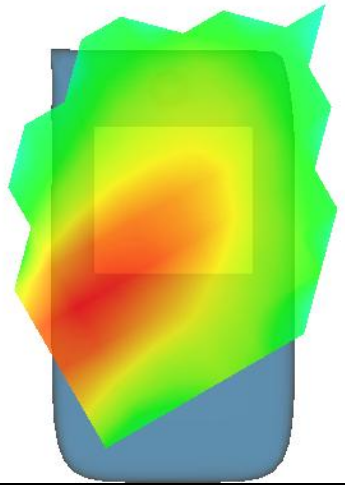
SURFACE SAR	VOLUME SAR
	

Maximum location: X=-52.00, Y=-63.00
SAR Peak: 0.26 W/kg

SAR 10g (W/Kg)	0.167105
SAR 1g (W/Kg)	0.213766

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.2486	0.2164	0.1807	0.1533	0.1282	0.1040	0.0880



3D screen shot	Hot spot position
	

MEASUREMENT 22

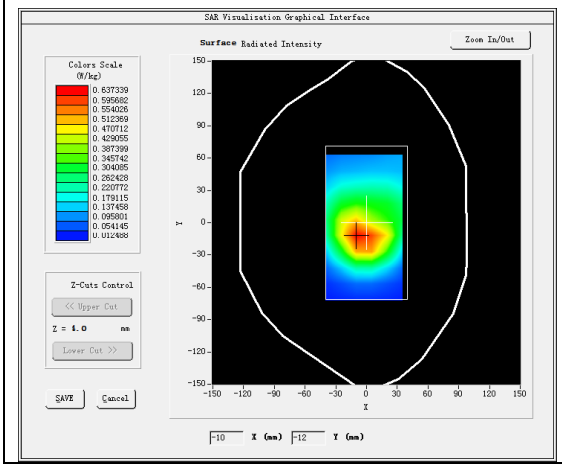
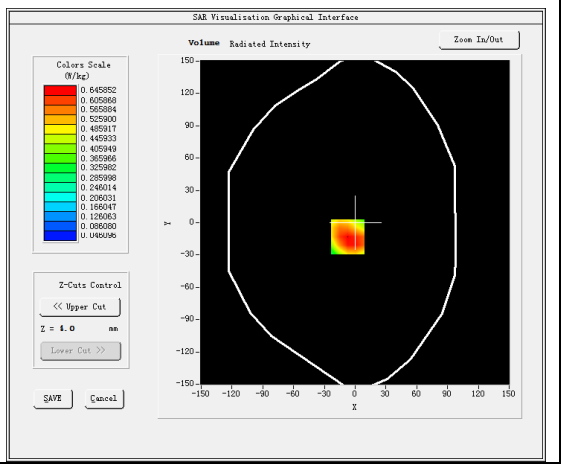
Date of measurement: 4/3/2022

A. Experimental conditions.

Area Scan	dx=15mm dy=15mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Body
Band	LTE band 5
Channels	Middle
Signal	LTE (Crest factor: 1.0)

B. SAR Measurement Results

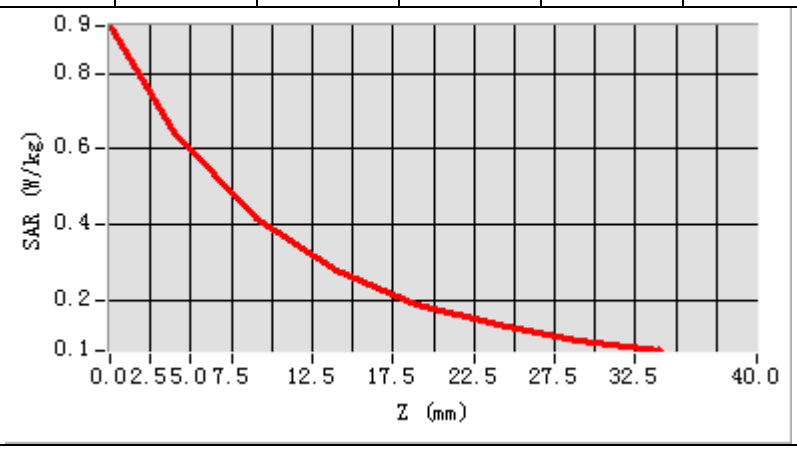
Frequency (MHz)	836.500000
Relative permittivity (real part)	42.391518
Relative permittivity (imaginary part)	19.955225
Conductivity (S/m)	0.927364
Variation (%)	-1.330000

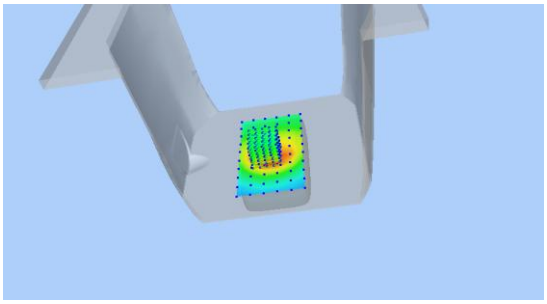
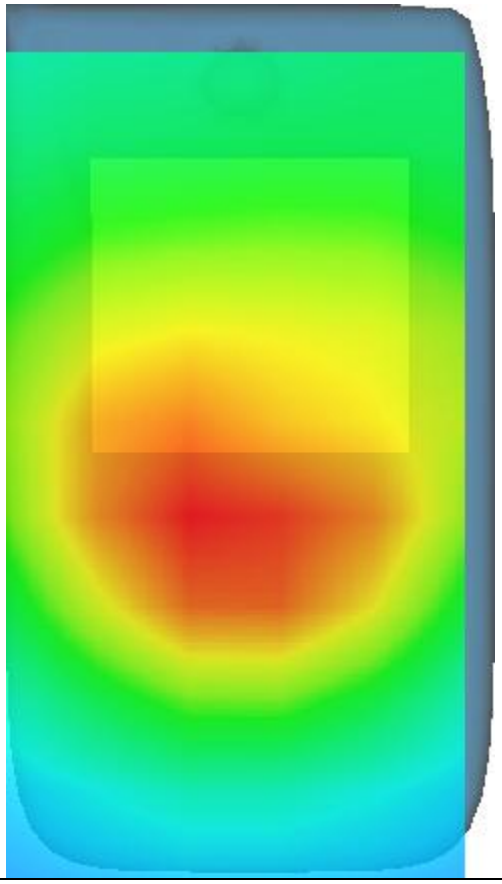
SURFACE SAR	VOLUME SAR
	

Maximum location: X=-7.00, Y=-13.00
SAR Peak: 0.96 W/kg

SAR 10g (W/Kg)	0.400890
SAR 1g (W/Kg)	0.646463

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.9261	0.6459	0.4148	0.2782	0.1893	0.1341	0.0932



3D screen shot	Hot spot position
	

MEASUREMENT 23

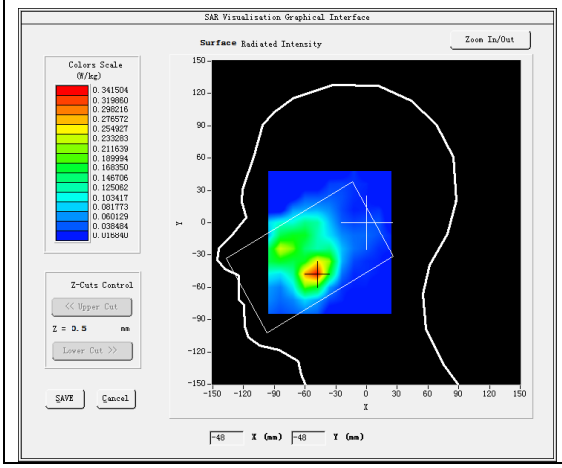
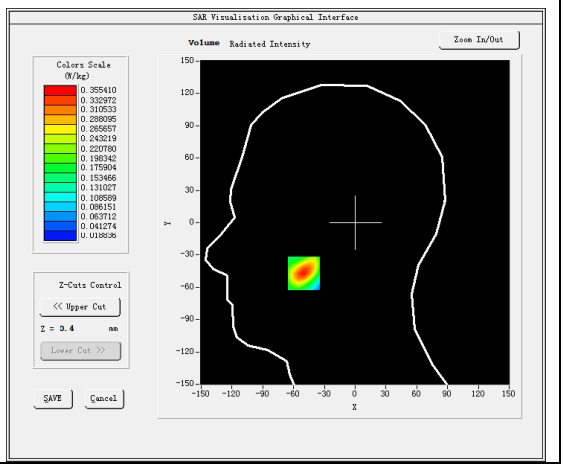
Date of measurement: 3/3/2022

A. Experimental conditions.

Area Scan	dx=12mm dy=12mm, h= 5.00 mm
ZoomScan	7x7x7,dx=5mm dy=5mm dz=5mm
Phantom	Left head
Device Position	Cheek
Band	LTE band 7
Channels	Middle
Signal	LTE (Crest factor: 1.0)

B. SAR Measurement Results

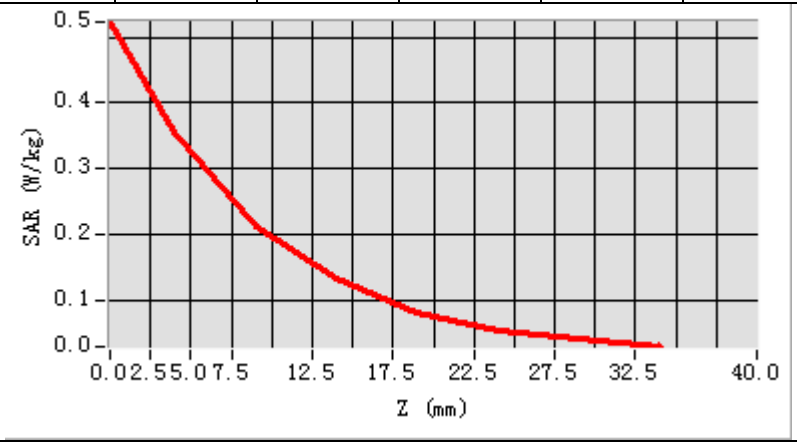
Frequency (MHz)	2535.000000
Relative permittivity (real part)	39.082504
Relative permittivity (imaginary part)	13.909350
Conductivity (S/m)	1.958900
Variation (%)	0.870000

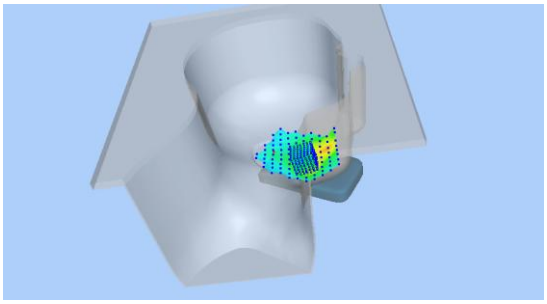
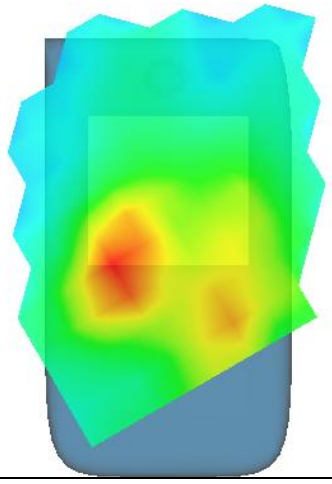
SURFACE SAR	VOLUME SAR
	

Maximum location: X=-50.00, Y=-47.00
SAR Peak: 0.52 W/kg

SAR 10g (W/Kg)	0.181201
SAR 1g (W/Kg)	0.329848

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.5229	0.3554	0.2132	0.1330	0.0826	0.0561	0.0436



3D screen shot	Hot spot position
	

MEASUREMENT 24

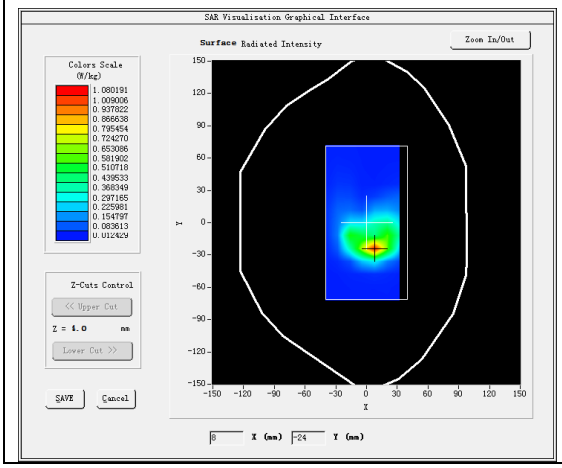
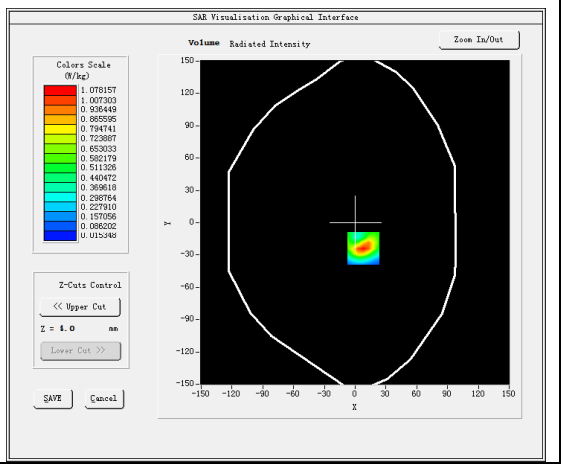
Date of measurement: 3/3/2022

A. Experimental conditions.

Area Scan	dx=12mm dy=12mm, h= 5.00 mm
ZoomScan	7x7x7,dx=5mm dy=5mm dz=5mm
Phantom	Validation plane
Device Position	Body
Band	LTE band 7
Channels	High
Signal	LTE (Crest factor: 1.0)

B. SAR Measurement Results

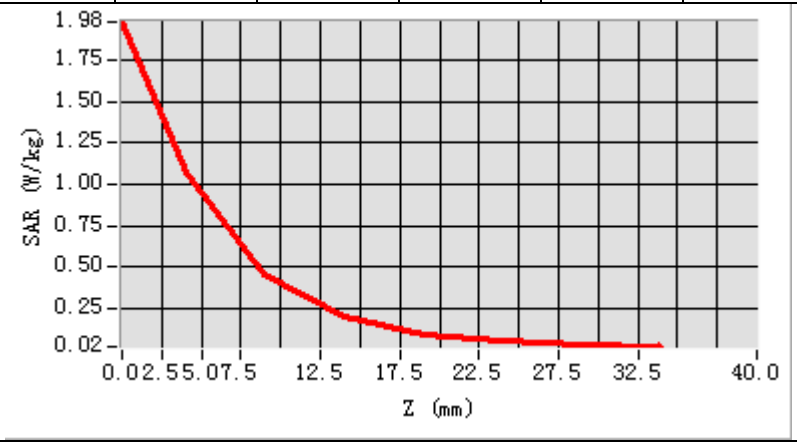
Frequency (MHz)	2560.000000
Relative permittivity (real part)	38.930004
Relative permittivity (imaginary part)	13.977050
Conductivity (S/m)	1.987847
Variation (%)	-0.170000

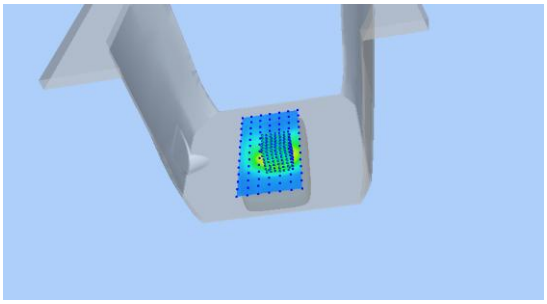
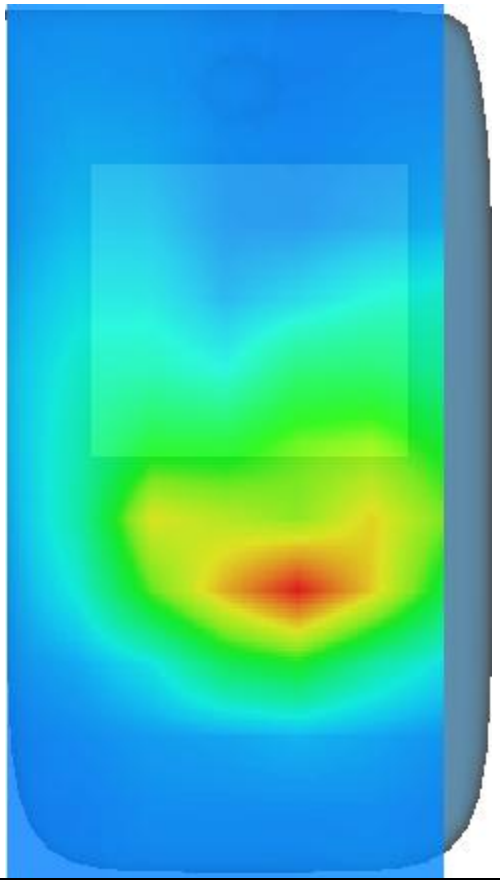
SURFACE SAR	VOLUME SAR
	

Maximum location: X=8.00, Y=-24.00
SAR Peak: 1.96 W/kg

SAR 10g (W/Kg)	0.392425
SAR 1g (W/Kg)	0.969621

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	1.9814	1.0782	0.4551	0.1981	0.0947	0.0528	0.0334



3D screen shot	Hot spot position
	

MEASUREMENT 25

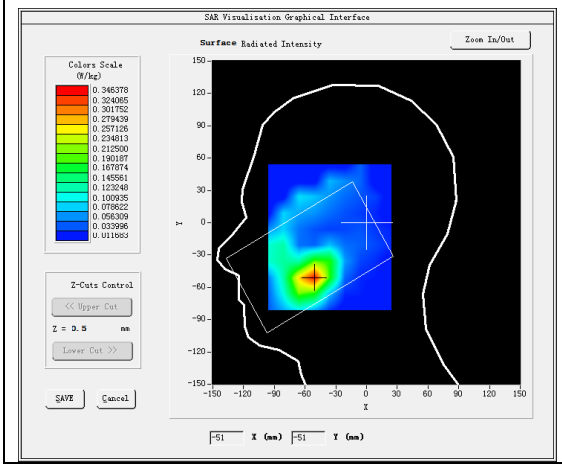
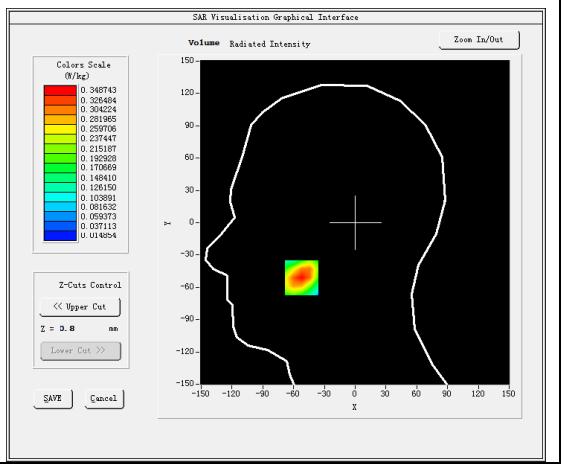
Date of measurement: 10/3/2022

A. Experimental conditions.

Area Scan	dx=15mm dy=15mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Left head
Device Position	Cheek
Band	LTE band 25
Channels	Middle
Signal	LTE (Crest factor: 1.0)

B. SAR Measurement Results

Frequency (MHz)	1882.500000
Relative permittivity (real part)	38.528736
Relative permittivity (imaginary part)	13.912146
Conductivity (S/m)	1.454592
Variation (%)	-2.050000

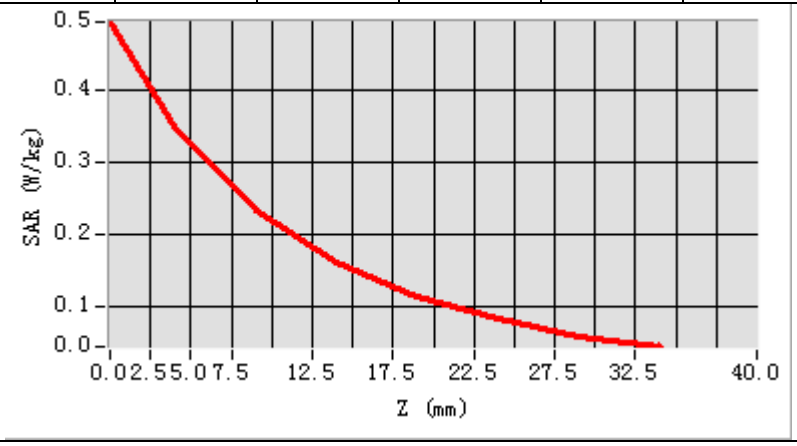
SURFACE SAR	VOLUME SAR
	

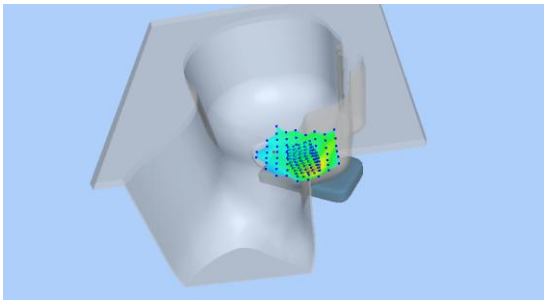
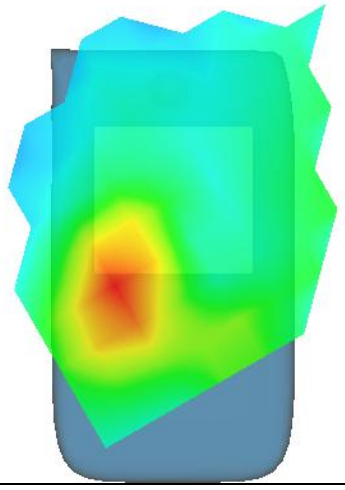
Maximum location: X=-52.00, Y=-51.00

SAR Peak: 0.49 W/kg

SAR 10g (W/Kg)	0.201444
SAR 1g (W/Kg)	0.341206

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.4937	0.3487	0.2310	0.1592	0.1122	0.0809	0.0559



3D screen shot	Hot spot position
	

MEASUREMENT 26

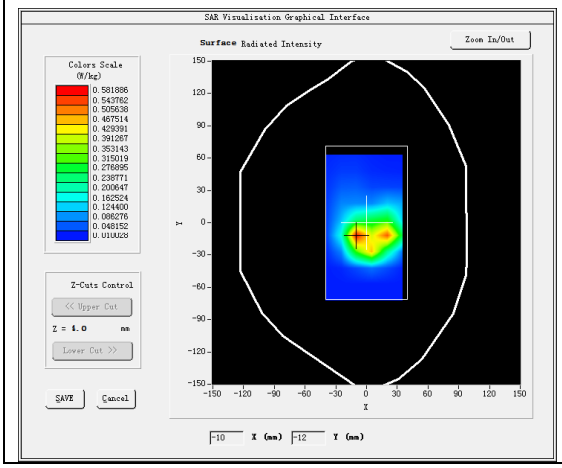
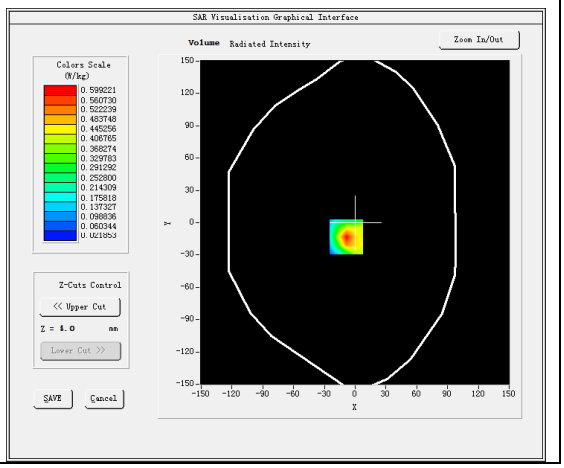
Date of measurement: 10/3/2022

A. Experimental conditions.

Area Scan	dx=15mm dy=15mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Body
Band	LTE band 25
Channels	Middle
Signal	LTE (Crest factor: 1.0)

B. SAR Measurement Results

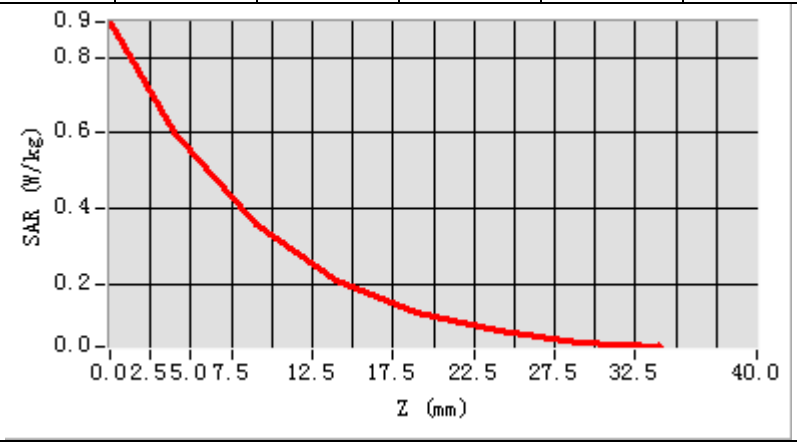
Frequency (MHz)	1882.500000
Relative permittivity (real part)	38.528736
Relative permittivity (imaginary part)	13.912146
Conductivity (S/m)	1.454592
Variation (%)	-1.240000

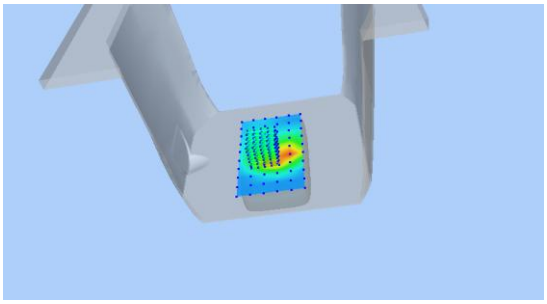
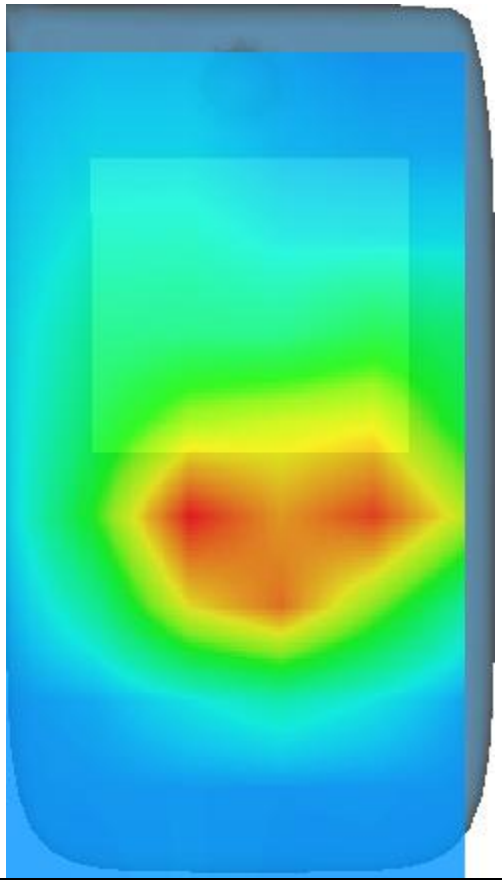
SURFACE SAR	VOLUME SAR
	

Maximum location: X=-9.00, Y=-13.00
SAR Peak: 0.92 W/kg

SAR 10g (W/Kg)	0.291651
SAR 1g (W/Kg)	0.568033

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.8931	0.5992	0.3563	0.2111	0.1233	0.0784	0.0471



3D screen shot	Hot spot position
	

MEASUREMENT 27

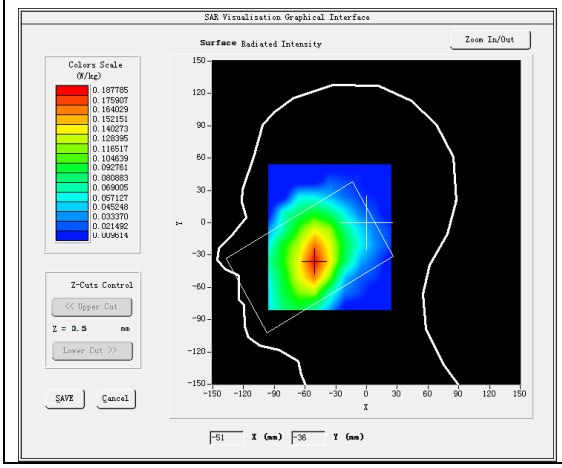
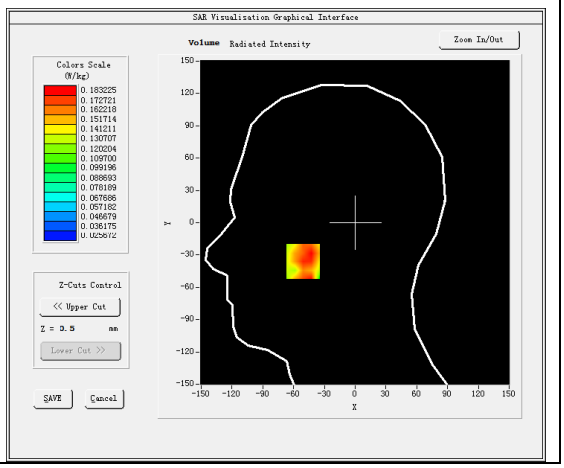
Date of measurement: 4/3/2022

A. Experimental conditions.

Area Scan	dx=15mm dy=15mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Left head
Device Position	Cheek
Band	LTE band 26A
Channels	Middle
Signal	LTE (Crest factor: 1.0)

B. SAR Measurement Results

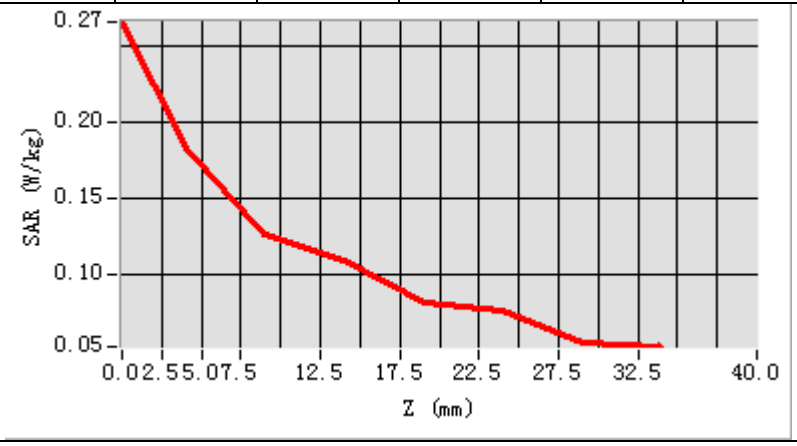
Frequency (MHz)	819.000000
Relative permittivity (real part)	42.658167
Relative permittivity (imaginary part)	19.939025
Conductivity (S/m)	0.907226
Variation (%)	-1.660000

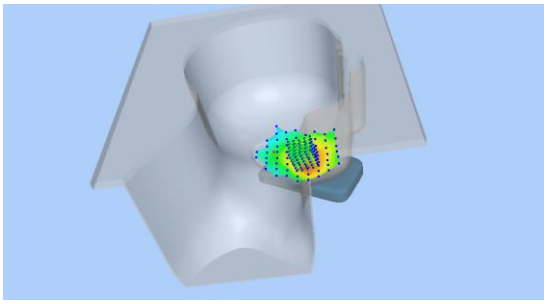
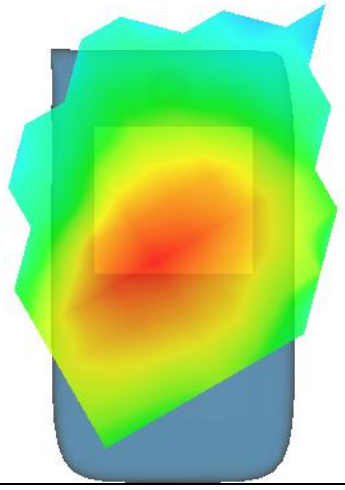
SURFACE SAR	VOLUME SAR
	

Maximum location: X=-51.00, Y=-36.00
SAR Peak: 0.28 W/kg

SAR 10g (W/Kg)	0.132658
SAR 1g (W/Kg)	0.174831

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.2658	0.1832	0.1266	0.1093	0.0819	0.0760	0.0554



3D screen shot	Hot spot position
	

MEASUREMENT 28

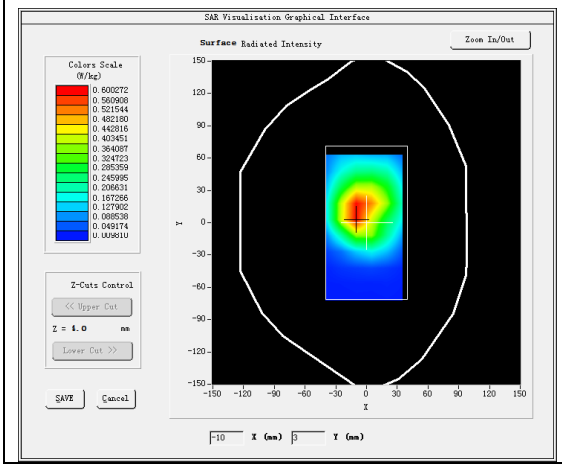
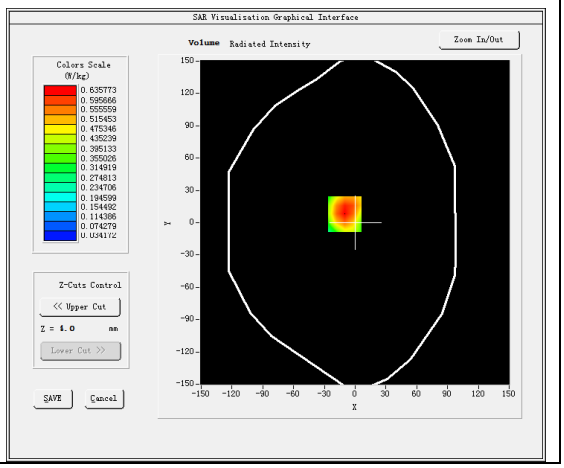
Date of measurement: 4/3/2022

A. Experimental conditions.

Area Scan	dx=15mm dy=15mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Body
Band	LTE band 26A
Channels	Middle
Signal	LTE (Crest factor: 1.0)

B. SAR Measurement Results

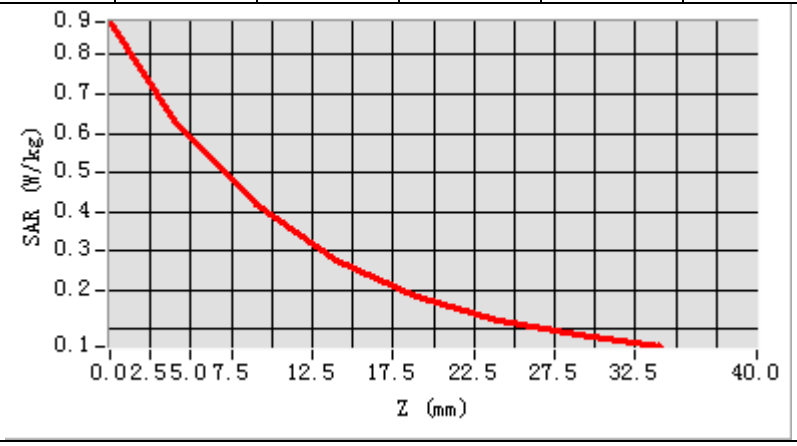
Frequency (MHz)	819.000000
Relative permittivity (real part)	42.658167
Relative permittivity (imaginary part)	19.939025
Conductivity (S/m)	0.907226
Variation (%)	-1.630000

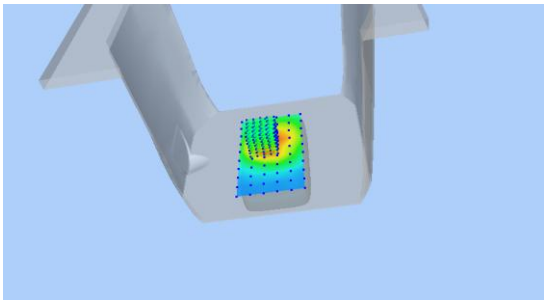
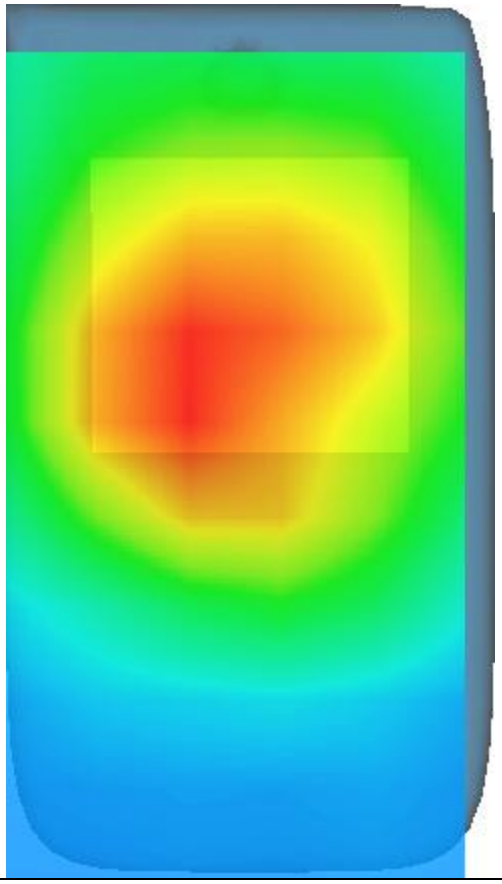
SURFACE SAR	VOLUME SAR
	

Maximum location: X=-10.00, Y=8.00
SAR Peak: 0.88 W/kg

SAR 10g (W/Kg)	0.382682
SAR 1g (W/Kg)	0.609985

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.8843	0.6358	0.4167	0.2766	0.1847	0.1237	0.0863



3D screen shot	Hot spot position
	

MEASUREMENT 29

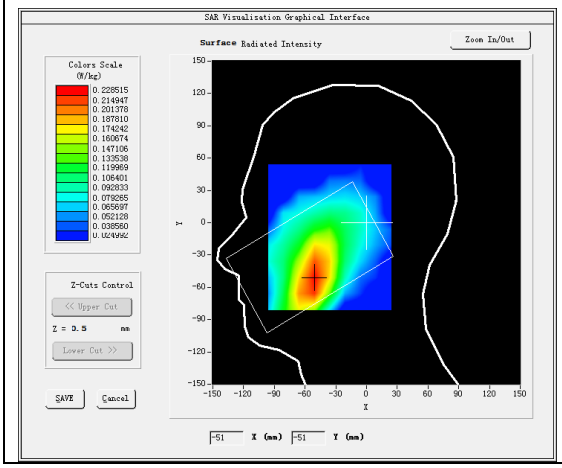
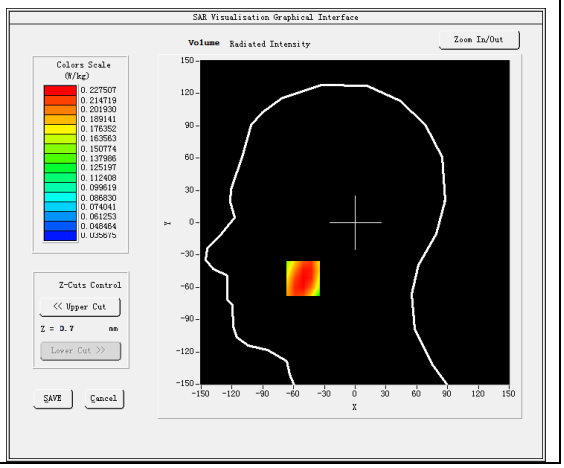
Date of measurement: 4/3/2022

A. Experimental conditions.

Area Scan	dx=15mm dy=15mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Left head
Device Position	Cheek
Band	LTE band 26B
Channels	Middle
Signal	LTE (Crest factor: 1.0)

B. SAR Measurement Results

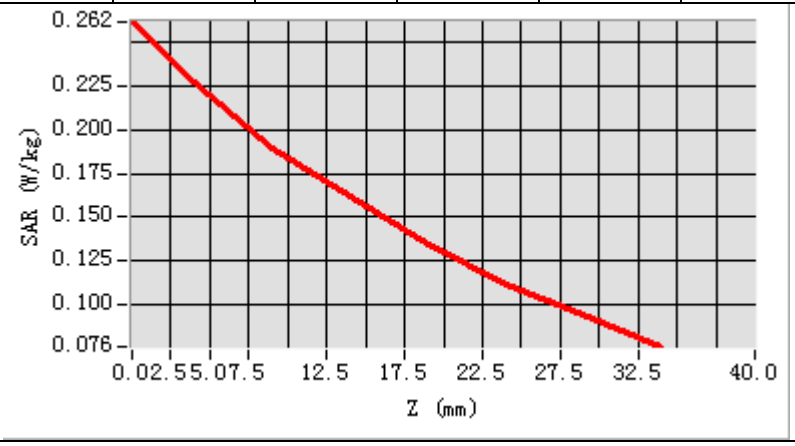
Frequency (MHz)	836.500000
Relative permittivity (real part)	42.391518
Relative permittivity (imaginary part)	19.955225
Conductivity (S/m)	0.927364
Variation (%)	-0.070000

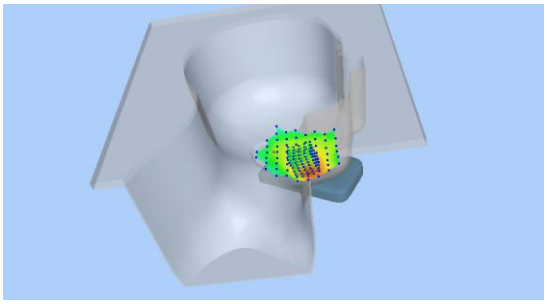
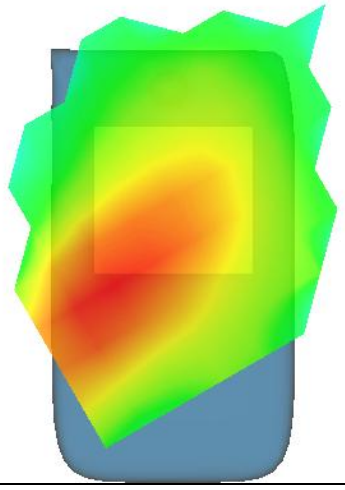
SURFACE SAR	VOLUME SAR
	

Maximum location: X=-51.00, Y=-52.00
SAR Peak: 0.27 W/kg

SAR 10g (W/Kg)	0.176058
SAR 1g (W/Kg)	0.225580

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.2615	0.2275	0.1894	0.1614	0.1339	0.1116	0.0946



3D screen shot	Hot spot position
	

MEASUREMENT 30

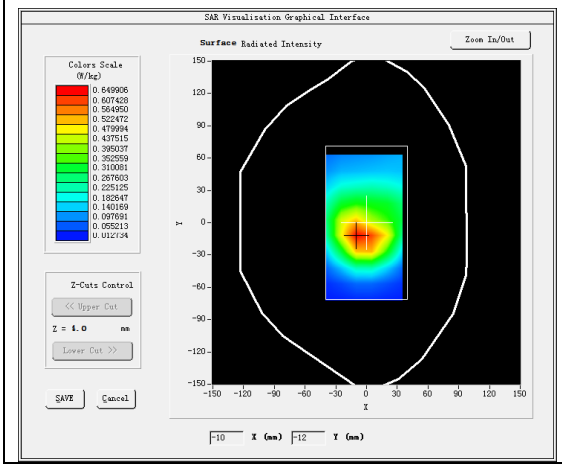
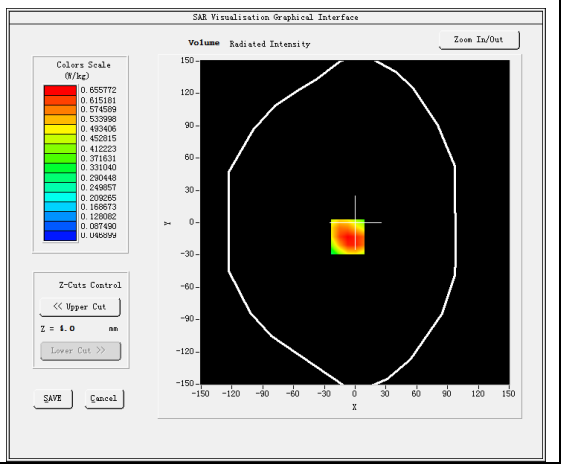
Date of measurement: 4/3/2022

A. Experimental conditions.

Area Scan	dx=15mm dy=15mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Body
Band	LTE band 26B
Channels	Middle
Signal	LTE (Crest factor: 1.0)

B. SAR Measurement Results

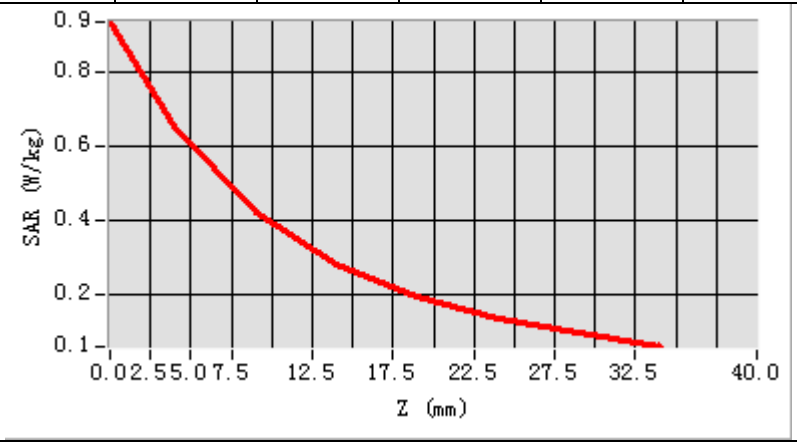
Frequency (MHz)	836.500000
Relative permittivity (real part)	42.391518
Relative permittivity (imaginary part)	19.955225
Conductivity (S/m)	0.927364
Variation (%)	-0.300000

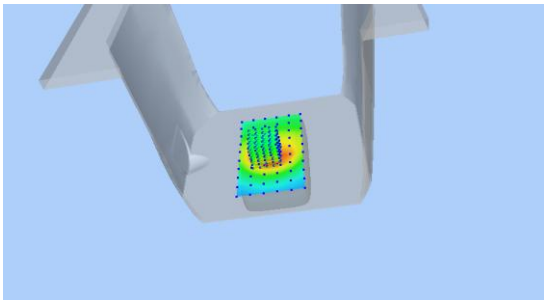
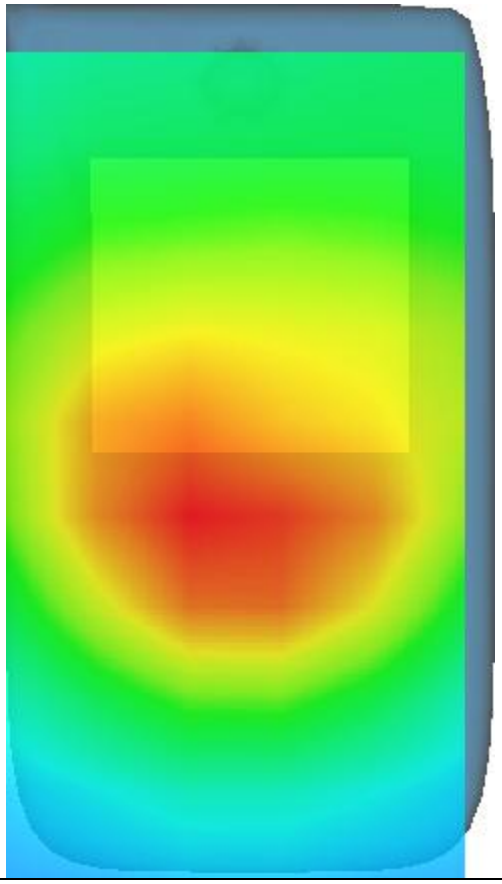
SURFACE SAR	VOLUME SAR
	

Maximum location: X=-7.00, Y=-13.00
SAR Peak: 0.97 W/kg

SAR 10g (W/Kg)	0.402955
SAR 1g (W/Kg)	0.648970

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.9352	0.6558	0.4212	0.2800	0.1911	0.1341	0.0941



3D screen shot	Hot spot position
	

14. Appendix D. Calibration Certificate

Table of contents
E Field Probe - SN 08/16 EPGO287
835 MHz Dipole - SN 03/15 DIP 0G835-347
1800 MHz Dipole - SN 03/15 DIP 1G800-349
1900 MHz Dipole - SN 03/15 DIP 1G900-350
2450 MHz Dipole - SN 03/15 DIP 2G450-352
2600 MHz Dipole - SN 03/15 DIP 2G600-356
5000-6000 MHz Dipole - SN 13/14 WGA 33
Extended Calibration Certificate

COMOSAR E-Field Probe Calibration Report

Ref : ACR.60.1.21.MVGB.A

SHENZHEN NTEK TESTING TECHNOLOGY CO., LTD.

BUILDING E, FENDA SCIENCE PARK, SANWEI COMMUNITY, XIXIANG STREET,

BAO'AN DISTRICT, SHENZHEN GUANGDONG, CHINA

MVG COMOSAR DOSIMETRIC E-FIELD PROBE

SERIAL NO.: SN 08/16 EPGO287

Calibrated at MVG

Z.I. de la pointe du diable

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Calibration date: 02/01/2022

Accreditations #2-6789 and #2-6814
Scope available on www.cofrac.fr

Summary:

This document presents the method and results from an accredited COMOSAR E-Field Probe calibration performed at MVG, using the CALIPROBE test bench, for use with a MVG COMOSAR system only. The test results covered by accreditation are traceable to the International System of Units (SI).

COMOSAR E-FIELD PROBE CALIBRATION REPORT Ref: ACR.60.1.21.MVGB.A

	Name	*Function*	*Date*	*Signature*
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	Customer Name
Distribution :	SHENZHEN NTEK TESTING TECHNOLOGY CO., LTD.

Issue	*Name*	*Date*	*Modifications*
A	Jérôme Luc	2/1/2022	Initial release

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1 DEVICE UNDER TEST

Device Under Test	
Device Type	COMOSAR DOSIMETRIC E FIELD PROBE
Manufacturer	MVG
Model	SSE2
Serial Number	SN 08/16 EPGO287
Product Condition (new / used)	Used
Frequency Range of Probe	0.15 GHz-6GHz
Resistance of Three Dipoles at Connector	Dipole 1: R1=0.211 MΩ Dipole 2: R2=0.199 MΩ Dipole 3: R3=0.199 MΩ

2 PRODUCT DESCRIPTION

2.1 GENERAL INFORMATION

MVG's COMOSAR E field Probes are built in accordance to the IEEE 1528, FCC KDB865664 D01, CENELEC EN62209 and CEI/IEC 62209 standards.

Figure 1 – *MVG COMOSAR Dosimetric E field Dipole*

Probe Length	330 mm
Length of Individual Dipoles	2 mm
Maximum external diameter	8 mm
Probe Tip External Diameter	2.5 mm
Distance between dipoles / probe extremity	1 mm

3 MEASUREMENT METHOD

The IEEE 1528, FCC KDB865664 D01, CENELEC EN62209 and CEI/IEC 62209 standards provide recommended practices for the probe calibrations, including the performance characteristics of interest and methods by which to assess their affect. All calibrations / measurements performed meet the fore mentioned standards.

3.1 LINEARITY

The evaluation of the linearity was done in free space using the waveguide, performing a power sweep to cover the SAR range 0.01W/kg to 100W/kg.

3.2 SENSITIVITY

The sensitivity factors of the three dipoles were determined using a two step calibration method (air and tissue simulating liquid) using waveguides as outlined in the standards.

3.3 LOWER DETECTION LIMIT

The lower detection limit was assessed using the same measurement set up as used for the linearity measurement. The required lower detection limit is 10 mW/kg.

3.4 ISOTROPY

The axial isotropy was evaluated by exposing the probe to a reference wave from a standard dipole with the dipole mounted under the flat phantom in the test configuration suggested for system validations and checks. The probe was rotated along its main axis from 0 to 360 degrees in 15-degree steps. The hemispherical isotropy is determined by inserting the probe in a thin plastic box filled with tissue-equivalent liquid, with the plastic box illuminated with the fields from a half wave dipole. The dipole is rotated about its axis (0°–180°) in 15° increments. At each step the probe is rotated about its axis (0°–360°).

3.1 BOUNDARY EFFECT

The boundary effect is defined as the deviation between the SAR measured data and the expected exponential decay in the liquid when the probe is oriented normal to the interface. To evaluate this effect, the liquid filled flat phantom is exposed to fields from either a reference dipole or waveguide. With the probe normal to the phantom surface, the peak spatial average SAR is measured and compared to the analytical value at the surface.

The boundary effect uncertainty can be estimated according to the following uncertainty approximation formula based on linear and exponential extrapolations between the surface and $d_{be} + d_{step}$ along lines that are approximately normal to the surface:

$$\mathrm{SAR}_{\mathrm{uncertainty}}[\%] = \delta\mathrm{SAR}_{be}\,\frac{(d_{be}+d_{step})^2}{2d_{step}}\,\frac{\left(e^{-d_{be}/(\delta/2)}\right)}{\delta/2} \quad \text{for } (d_{be}+d_{step}) < 10\ \mathrm{mm}$$

where

$\mathrm{SAR}_{\mathrm{uncertainty}}$	is the uncertainty in percent of the probe boundary effect
d_{be}	is the distance between the surface and the closest *zoom-scan* measurement point, in millimetre
Δ_{step}	is the separation distance between the first and second measurement points that are closest to the phantom surface, in millimetre, assuming the boundary effect at the second location is negligible
δ	is the minimum penetration depth in millimetres of the head tissue-equivalent liquids defined in this standard, i.e., $\delta \approx 14$ mm at 3 GHz;
$\Delta\mathrm{SAR}_{be}$	in percent of SAR is the deviation between the measured SAR value, at the distance d_{be} from the boundary, and the analytical SAR value.

The measured worst case boundary effect SARuncertainty[%] for scanning distances larger than 4mm is 1.0% Limit ,2%).

4 MEASUREMENT UNCERTAINTY

The guidelines outlined in the IEEE 1528, OET 65 Bulletin C, CENELEC EN50361 and CEI/IEC 62209 standards were followed to generate the measurement uncertainty associated with an E-field probe calibration using the waveguide technique. All uncertainties listed below represent an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2, traceable to the Internationally Accepted Guides to Measurement Uncertainty.

Uncertainty analysis of the probe calibration in waveguide					
ERROR SOURCES	**Uncertainty value (%)**	**Probability Distribution**	**Divisor**	**ci**	**Standard Uncertainty (%)**
Expanded uncertainty 95 % confidence level k = 2					14 %

5 CALIBRATION MEASUREMENT RESULTS

Calibration Parameters	
Liquid Temperature	20 +/- 1 °C
Lab Temperature	20 +/- 1 °C
Lab Humidity	30-70 %

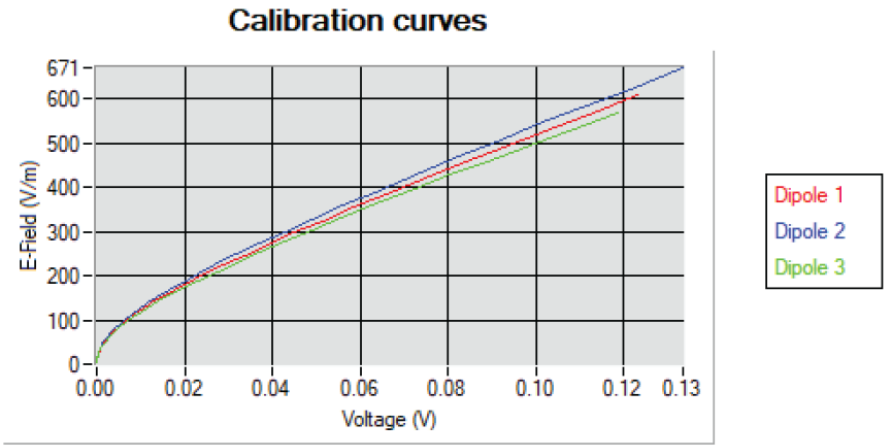
5.1 SENSITIVITY IN AIR

Normx dipole 1 (μV/(V/m)^2)	Normy dipole 2 (μV/(V/m)^2)	Normz dipole 3 (μV/(V/m)^2)
0.72	0.66	0.77

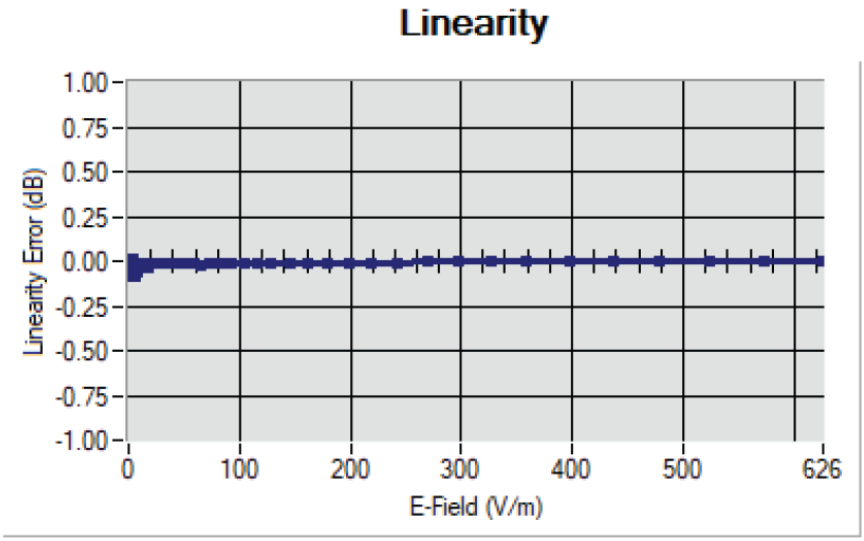
DCP dipole 1 (mV)	DCP dipole 2 (mV)	DCP dipole 3 (mV)
107	110	110

Calibration curves ei=f(V) (i=1,2,3) allow to obtain E-field value using the formula:

$$E = \sqrt{E_1^{\,2} + E_2^{\,2} + E_3^{\,2}}$$



5.2 LINEARITY



Linearity:+/-1.90% (+/-0.08dB)

5.3 SENSITIVITY IN LIQUID

Liquid	Frequency (MHz +/- 100MHz)	ConvF
HL750	750	1.49
HL850	835	1.50
HL900	900	1.61
HL1800	1800	1.73
HL1900	1900	1.91
HL2000	2000	1.97
HL2300	2300	1.92
HL2450	2450	1.98
HL2600	2600	1.87
HL3300	3300	1.79
HL3500	3500	1.85
HL3700	3700	1.79
HL3900	3900	2.07
HL4200	4200	2.21
HL4600	4600	2.25
HL4900	4900	2.05
HL5200	5200	1.80
HL5400	5400	2.05
HL5600	5600	2.16
HL5800	5800	2.07

LOWER DETECTION LIMIT: 8mW/kg

5.4 ISOTROPY

HL1800 MHz